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OM nucleic - nu	OM nucleic - nucleic search, using sw model
Run on:	July 3, 2003, 02:31:01; Search time 4275.04 Seconds (without alignments) 11062.367 Million cell updates/sec
Title: Perfect score: Sequence:	US-10-004-219B-2 1625 1 gctttccagtctggtggtgactgcaataaaatcagcagtc 1625
Scoring table:	IDENTITY_NUC Gapop 10.0 , Gapext 1.0
Searched:	2054640 seqs, 14551402878 residues
Total number of	Total number of hits satisfying chosen parameters: 4109280
Minimum DB seq Maximum DB seq	Minimum DB seq length: 0 Maximum DB seq length: 2000000000
Post-processing	Post-processing: Minimum Match 0%

Maximum Match 100% Listing first 45 summaries Database : GenEmbl:*

GenEmbl:*

1: gb_ba:*
2: gb_htg:*
3: gb_ln:*
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Pred. No. is the number of results predicted by chance to have a

em_htgo_other:*

em_htg_mam:* em_htg_vrt:* em_sy:* em_htgo_hum:*

em_htg_other:*
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em_htg_rod:*

em_vi:* em_htg_hum:* em_htg_inv:*

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Result Corre greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

** Summaries Summaries Summaries Summaries Summaries Active Section (1972)

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ALIGNMENTS
AF290004 1625 bp mRNA linear PRI 27-FEB-2001
cds.
AF290004
AF290004
AF290004.1 GI:12597292
HOMO Sapiens.

RESULT 1
AF290004
LOCUS
DEFINITION

ACCESSION VERSION KEYWORDS SOURCE ORGANISM

U15048 Mesocricetu D32218 Hamster mRN E01501 cDNA encodi M80927 Human glyco

MAU15048

SOURCE
ORGANISM Homo sapiens
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutherla; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (abase 1 to 1625)
AUTHORS Boot, R.G., Blommaart, E.F., Swart, E., Ghauharali-van der Vlugt, K.,
Bijl, N., Moe, C., Place, A. and Aerts, J.M.

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/note="chitinase precursor; AMCase; chitinase activity demonstrated by expression in COS cells; similar to sequences presented in GenBank Accession Numbers AB025008 and AB025009"
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Boot, R.G., Verhoek, M., Swart, E. a
Direct Submission
Submitted (26-JUL-2000) Dept. of
Center, University of Amsterdam,
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699 AACTGTCACAGTACCTGGACTACATGTCATGACCTACGACCTCCATGGCTCCTGGG 758	819 CCTACCTCAATGTGGATTATGTCATGAACTACTGGAAGGACAATGGAGCACCAGCTGAGA 878	999 GGATCTGGGCTTACTACGAGATCTGTACCTTCCTGAAAATGGAGCCACTCAGGGATGGG 1058		1025 AGCCCATTGAGCCATAACTGCTCCCCATTGGCAGCGGGAACGGGAGCAGCAGTAGCA 1084 1359 GCTCTGGAGGCAGCTGGAGCAGTGGATTCTGTGCTGTCAGAGCCAACGGCCTCTACC 1418 1085 GCTCTGGAGGCAGCTCGGGAGGCAGTGGATTCTGTGCTGTCAGAGCCAACGGCCTCTACC 1418 1419 CCGTGGCAAATAACAGAAATGCCTTCTGGCACTGGTGATGGAGTCACGTACCAGCAGC 144 1419 CCGTGGCAAATAACAGAAATGCCTTCTGGCACTGCGTGAATGGAGTCACGTACCAGCAGA 1478 1145 CCGTGGCAAATAACAGAAATGCCTTCTGGCACTGCGTGAATGGAGTCACGTACCAGCAGA 1204 1479 ACTGCCAGGCCGGCCTTGTTCTTCGACACCGCGTGAATGGAGTCACGGCCATAAACCT 1538	1205 1539 1265 1599 1325	AB025008
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NRNAFWHCYNGYTYQDNCDAGLYPTAPSGSGNGSGSSSGGSGGCAGRANGLYPAN
387 c 348 g 308 t
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Courses.

Salto, A., Ozaki, K., Fujiwara, T., Takahashi, E. and Tanigami, A.

Salto, A., Ozaki, K., Fujiwara, T., Takahashi, E. and Tanigami, A.

Direct Submission

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Tel:81-88-665-2888, Fax:81-88-637-1035)
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Salto,A., Ozakl,K., Fujiwara,T., Nakamura,Y. and Tanigami,A.
Isolation and mapping of a human lung-specific gene, TSA1902, encoding a novel chitinase family member
Gene 239 (2), 325-331 (1999)
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                                        Craniata; Vertebrata; E
Catarrhini; Hominidae;
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/db_xref="61:6467177"
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novel member of chitinase family; TSA1902-L.
Homo sapiens cDNA to mRNA.
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/db_xref="taxon:9606"
                                        Chordata; C
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/gene="TSA1902-L"
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                           Homo sapiens
Eukaryota; Metazoa;
Mammalia; Eutheria;
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BTREAFEQEAKQTNKPRTEISSYIKFLHQYGFGLDFDWSYPGFRGSPGDKHLFTVLVO
BTREAFEQEAKQTNKPRILVTAAVAAGISNIQAGYEIPQLSQYLDFIHWTYDFHGSW
SNYGTGRAPTLXYPTDFGSYNTYLNYFTAMYWKNKARAFLIGIGFPAKGHRFILRDA
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Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
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                                                          Suzuki,M., Morimatsu,M., Yamashita,T., Iwanaqa,T. and Syuto,B.
A novel serum chitinase that is expressed in bovine liver
FEBS Lett. 506 (2), 127-130 (2001)
                                                                                                                                            Submitted (23-NOV-2000) Masako Suzuki, Iwate University, Depar of Veterinary Medicine, Faculty of Agriculture; Ueda 3-18-8, Morloka, Iwate 020-8550, Japan (E-mail:u9998001@iwate-u.ac.jp, Tel:81-19-621-6212)
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Suzuki,M., Morimatsu,M. and Syuto,B.
Direct Submission
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3364 TCCATGGCTCCTGGGAGGGCTACACTGGAGAGAACAGCCCCCTCTACAAATACCCGACTG 3423
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                                                                                                                                             ar PRI 15-JUL-2002
highly similar to
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (08-JUL-2002) Sumlo Sugano, Institute of Medical Science, University of Tokyo, Laboratory of Genome Structure, Human Genome Center; Shirokane-dai, 4-6-1, Minato-ku, Tokyo 108-8639, Japan (E-mail:cdnaidims.u-tokyo.ac.jp, Tel:81-3-5449-5286,
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Kodaira,H., Furuya,T., Takahashi,M., Kikkawa,E., Omura,Y., Abe,R
Kamihara,K., Katsuta,N., Sato,K., Tanikawa,M., Yamazaki,M.,
Suzuki,Y., Hata,H., Nakagawa,K., Mizuno,S., Morinaga,M.,
Kawamura,M., Sugiyama,T., Irie,R., Octsuki,T., Sato,H.,
Nishikawa,T., Sugiyama,A., Kawakami,B., Nagai,K., Isogai,T. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      564 TCTTCACTGTCCTGGTGCAGGAAATGCGTGAAGCTTTTGAGCAGGAGGCCAAGCAGATCA
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Homo sapiens cDNA FLJ25948 fis, clone STM04207, hi
Homo sapiens acidic mammalian chitinase precursor.
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/clone_lib="sTm"
/note="cloning vector: pME18SFL3"
868 c 966 g 1154 t
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llarity 99.1%; Pred. No. 2.5e-270;
Conservative 0; Mismatches 10;
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NEDO human cDNA sequencing project
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/db_xref="taxon:9606"
/clone="STM04207"
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48 fis,
           2 (bases I to 4250)
Sugano, S. and Suzuki, Y.
Direct Submission
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TITLE
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JOURNAL
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	×	Clone distribution: MGC clone distribution information can be through the I.M.A.G.E. Consortium/LLML at: http://image.llnl.g.Series: IRAK Plate: 24 Row: h Column: 16 This clone was selected for full length sequencing because it passed the following selection criteria: Similarity but not identity to protein. Location/Qualifiers I. 1557 I. 1557 I. 1557 I. 1557 I. A. 1557 I. 1557 I	/ Lissue_vpe="sailtory gland, in week old remale mouse" / clone_lib="Nor_cGaP_SG2" / lab_host="bHl0b" / note="Vector: pCMV-SPORT6" 41425 / codon_start=1 / product="chitinase, acidic" / protuctin_lef="Analy448.1" / db_xref="dlocusID:81600" / translation="MAKLLVTGLALLINAQLGSAYNLICYFTNWAQYRPGLGSFKPD DINPCLCTHLIYAFAGWQNNEITTEWNDYLLYRAFNDLKRRNSKLTLLAIGGWNFG TAPFTYWSTSQNROTITSYNTRELRQYGFOGLDLOWRYPGSRGSPPQDKHLFTVLVK EMBRAFEQRAIESNRPRLWYTAAVAGGISNIQAGYETPELSSYLDFIHVWHYPDLHGSW EGTTGENSPLYKYPTFGSNAYLNVTWWWNNYMNGAPARKLINGFPERFFTINP SDNGIGAPPSGDGPAGFTROAGFTRAYYETCTFLRSCANTEND	OUNT 410 a y Match Local Similari	CORGENTACTION OF MESMACCHES 22), INGRES 9 9, SEPS CORTIGORACTICACTOR OF SCALE OF SCA	CGCTTCATGCCTGACACATCGACCTGCTGCTGCCCCACTGATCGCCCAGGCTTGGGGGGTTGCTGGGGGGTTGTGCCTGTGCCTGTACCCCTGATCTACGCCTTTGCT 28 [
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ACAGTACCTGGACTACATCCATGTCATGACCTACGACCTCCATGGCTCCTGGGAGGGCTA
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HLFFYLVKERREAFEGEAIESNRPRLMYTAAVAGGISNIQAGYEIPELSKYLDFIHVM
TYDLHGSWEGYTGENSPLYKYPTETGSNAYLMYDYVMXYMKNGAPAEKLIVGFPEYG
TYDLHGSWEGYTGAPTSGOFAGFYTRQAGFWAY YELTFRSGATEWENDSOF
AYKAREMAGYDNIGAFSSVKAQWLKQNNRGGAM WAIDLDFTGSFCORGKFPTTSTLN
KALGISTEGCTAAPDVPSEPVTTPPGSGGGGGGSGGSGFCADKADGLX PVADDRN
     GTGGCAAATAACAGAAATGCCTTCTGGCACTGCGTGAATGGAGTCACGTACCAGAAC 1480
                                                                                                                                1372 TGTCAAGCAGGGCTTGTTTTGATACCAGCTGTAATTGCTGCAACTGGCCATGAACCTAA 1431
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 1538)
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Submitted (15-JUL-2001) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Clone distribution: MGC clone distribution information can be for
through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Series: IRAK Plate: 24 Row: e Column: 11.
                                                                                                                                                                                                                                                                                     BC011134 1538 bp mRNA linear ROD 07-AUG-2
Mus musculus, Similar to eosinophil chemotactic cytokine, clone
MGC:18771 IMAGE:4165150, mRNA, complete cds.
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                             1312 GIGGCAGATGACAGAAATGCTTTTTGGCAGTGCATCAATGGAATCACATACCAGCAGCAT
                                                                                                     1481 TGCCAGGCCGGGCTTGTCTTCGACACCAGCTGTGATTGCTGCAACTGGGCATAAACCTGA
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/protein_id="AAH11134.1"
/db_xref="GI:15029822"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center code: BCM-HGSC
Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Hale, S.M.
Yoon, V.S., Kowis, C.R., Lawrence, S., Martin, R.G., Muzny, D.
Richards, S., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: MGC help desk in the man in the man
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/tlsue_type="salivary gland, 10
/clone_lib="NCL_CGAP_SG2"
/lab_host="DH108"
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                         /product-"putative chitinase" 394. 417 /gene-"YNL"
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/note="putative inva
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Matches 1197; Conservative
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/gene="YNL"
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MREAFEQEAIESNRPRLMVTAAVAGGISNIQAGYEIPELSKYLDFIHVMŢYDLHGSWE
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DNGIGAPTSGDGPAGPYTRQAGFWAYYEICTFLRSGATEVWDASQEVPYAYKANEWLG
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TYAPDVPSEPVTTPPGSGSGGGSSGGSSGGSGFCADKADGLYFVADDRNAFWQCINGI
TYQHCQAGLVFDTSCNCCNWP"
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9500 Gilman Drive, Mail Code 0368, La Jolla, CA 92093-03687,
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Mus musculus putative chitinase precursor (YNL) mRNA, partial cds.
AF154571
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Nus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
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                                                                                                                                                                                 AGGCAGCTCGGGAGGCAGTGGATTCTGTGCTGTCAGAGCCAACGGCCTCTACCCCGTGGC
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Price, P.A., Harris, S.C. and Williamson, M.K.
Direct Submission
Submitted (26-MAY-1999) Biology, University
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Price, P.A., Harris, S.C. and Williamson, M.K.
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Strain=ATCC.1476668"
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/db_xref="ATCC:10009"
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EGYTGENSPLYKYPTETGSNAYLAVDYVMNYWKNNGAPAEKLIVGFPEYGHTFILRNP
SDDGTGAPTSGODPAGAYTROÅGFWAYTBICPFLSGAFEWDASQEVPYAYKABWL
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EMREAFEQEAIESNRPRLMVTAAVAGGISNIQAGYEIPELSKYLDFIHVMTYDLHGSW
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Pred. No. 4.1e-269;
0; Mismatches 231; Indels
                                                                       /codon_start=1
/product="acidic mammalian chitinase
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                                                           AMCase"
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                                                                                                                                                                                                                                                   ITYQQHCQAGLVFDTSCNCCNWP"
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3. .1424
                                          /EC_number="3.2.1.14"
 tissue_type="lung"
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Boot,R.G., Blommaart,E.F., Swart,E., Ghauharali-van der Vlugt,K., Bijl,N., Moe,C., Place,A. and Aerts,J.M.
Identification of a novel acidic mammalian chitinase distinct from
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus
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Meibergdreef 15, Amsterdam 1105
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                         GTGCCCCTACCTCTGGTGATGGCCCTGCTGGGCCCTATACCAGACAGGCTGGGTTCTGGG
                                                        CITACTACGAGATCTGTACCTTCCTGAAAATGGAGCCACTCAGGGATGGCCCTC
                                                                       AGGAAGTGCCTTATGCCTATCAGGGCAATGTGTGGGTTGGCTATGACAACATCAAGAGCT
                                                                                                                               TCGATATTAAGGCTCAATGGCTTAAGCACAACAAATTTGGAGGCGCCATGGTCTGGGCCA
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Boot, R.G., Verhoek,M., Swart,E. and Aerts,J.M. Direct Submission
Submitted (26-JUL-2000) Dept. of Biochemistry, Center, University of Amsterdam, Meibergdreef
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J. Biol. Chem. 276 (9), 6770-6778 (2001)
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ISTLKRALGLQSASCTAPAQPIEPITAAPSGSGNGSGSSSGGSGFCAGRANGL
YEVANNRNAFHROVTYQQNGQAGYFDTFSCDCCNWA"
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Pred. No. 5.4e-268;
0; Mismatches 3;
 -665-2888, Fax:81-88-637-1035)
Location/Qualifiers
1. .1188
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150. .1097
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Submitted (16-MAR-1999) Akihiko Saito, Otsuka Pharmaceutical Co.,
Ltd., Otsuka GBR Research Institute; 463-10 Kaqasuno Kawauchi-cho,
Tokushima, Tokushima 771-0192, Japan (E-mail:saito@otsuka.gr.jp,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mRNA linear PRI 25-NOV-19 novel member of chitinase family,
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Catarrhini; Hominidae; Homo.
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/protein_id="AAB62394.2"
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/d_xxef="dg1:11140897"
/translation="WAKLILVTGLAILLNVQLGSSYQLMCYYTSWAKDRPIEGSFKPG
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Mus musculus secretory protein precursor (Yml) mRNA, complete cds.
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Chang, N.C., Hung, S.I., Hwa, K.Y., Kato, I., Chen, J.E., Liu, C.H. and
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4 (bases 1 to 1525)
Chang, N.-C.A., Liu,C.-H. and Chang,A.C.
Direct Submission
Submitted (13-NOV-2000) Microbiology and Immunology, National
Yang Ming University, 155, Sect. II, Li-Noon St, Talpei, Talwan
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GGAGGCAGCTCGGGAGGCAGTGGATTCTGTGCTGTCAGAGCCAACGGCCTCTACCCCGTG
                                                                                 GCAAATAACAGAAATGCCTTCTGGCACTGCGTGAATGGAGTCACGTACCAGAACTGC
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Nov 13, 2000 this sequence version replaced gi:202441.
Location/Qualifiers
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/clone_lib="PEC in lambda gtll and ZAPII"
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Chang, N.-C.A., Liu, C.-H. and Chang, A.C.
Direct Submission
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Owhashi, M., Arita, H. and Hayai, N. Identification of a novel eosinophil chemotactic cytokine (ECF-L) as a chitinase family protein
J. Biol. Chem. 275 (2), 1279-1286 (2000)
                                                      ATCTGGGCTTACTACGAGATCTGTACCTTCCTGAAAAATGGAGCCACTCAGGGATGGGAT
           CTCATCGTTGGATTCCCTACCTATGGACACAACTTCATCCTGAGCAACCCCTCCAACACT
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GGCTACACTGGAGAGAACAGCCCCCTCTACAAATACCCGACTGACACGGGCAGCAACGCC
                                          TACCTCAATGTGGATTATGTCATGAACTACTGGAAGGACAATGGAGCACCAGCTGAGAAG
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Submitted (06-SEP-1996) Makoto Owhashi, The University C Tokushima, Faculty of Integrated Arts and Sciences; 1-1
Minami-Johsanjima, Tokushima, Tokushima 770, Japan (E-mail:ohashi@las.tokushima-u.ac.jp, Tel:0886-56-7261, Fax:0886-56-7298)
                                                                                                                                                                                                                                                                                                                                                                                                                                 D87757 1506 bp mRNA linear Mus musculus mRNA for ECF-L precursor, complete cds
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Sequence updated (05-Oct-1999)
Location/Qualifiers
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/db_xref="taxon:10090"
/tissue_type="bone marrow"
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1. .1197
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Owhashi,M.
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Direct Submission
Submitted (02-AUG-2001) Blochemistry and Molecular Biology, John
Curtin School of Medical Research, Australian National University,
John Mebb,D.C. and Foster,P.S.
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Submitted (06-AUG-2002) Biochemistry and Molecular Biology, John
Submitted (06-AUG-2002) Biochemistry and Molecular Biology, John
Curtin School of Medical Research, Australian National University,
Off Mills Rd, Acton, Canberra, ACT 2601, Australia
Sequence update by submitter
on Aug 6, 2002 this sequence version replaced gi:15705156.
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/db_xref="taxon:10090"
/note="isolated from the lung lavage from allergic mice"
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PAPFSSMY STPONROFFIKSVIRELNGYNFDGLLIDMOYPGSRGSPPROKHLESVLVO
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Pred. No. 2.5e-174;
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Best Local Similarity 73.5%; Pred. No. 6.7e-174; Matches 878; Conservative 0; Mismatches 317; Indels 0; Gaps 0;	QY 104 ATGACAAGCTTATTCTCCTCACAGGTCTTGTCCTAATACTGAATTTGCAĠCTCGGCTCT 163	QY 164 GCCTACCAGCTGACTACTTCACCAACTGGGCCCAGTACCGGCCAGGCCTGGGGCGC 223	OY 224 TTGATGCCTGACAACATCGACCCCTGCTCTGTACCCACCTGATCTACGCTTTGCTGGG 283	QY 284 AGGCAGAACAAGATCACCACCATCGATGGAACGATGTGACTCTCTACCAAGCTTTC 343	QY 344 AATGGCCTGAAAAATAAGAACGCAGCTGAAAACTCTCCTGGCCATTGGAGGCTGGAAC 403 	TTGGGACTGCCCTTTCACTGCCATGGTTTCTACTCCTGAGAACGCCCAGACTTTCATC 46	OY 464 ACCTCAGTCATCAAATTCCTGCGCCAGTATGAGTTTGACGGCTGGACTTTGACTGGGAG 523 1	dy 524 taccctggctctcgtgggaccccccctcaggacaagcatctctcactgtcctggtgcag 583	OY 584 GAAATGCGTGAAGCTTTTGAGCAGGGCCAAGCAGATCAACAAGCCCAGGCTGATGGTC 643	644 ACTGCTGCAGTAGCTGCTGGCATCTCCAATATCCAGTCTGGCTATGAGATCCCCCAACTG 70	QY 704 TCACAGTACCTGGACTACCATGACCTACGACCTCCATGGCTCCTGGGAGGC 763	OY 764 TACACTGGAGAGAACAGCCCCTCTACAATACCGGACTGACAGGAAGAACGCCTAC 823	QY 824 CTCAATGTGGATTATGTCATGAACGAGGACAAGGACAAGGGCACCAGCTGAGAAGCTC 883	QY 884 ATCGTTGGATTCCCTACGTATGGACACATCCTGAGCAACCCCTCCAACACGTGGA 943	QY 944 ATTGGTGCCCCACCTCTGGTGCTGGTCCTGGGCCCTATGCCAAGGAGTCTGGGATC 1003	0y 1004 TGGCCTTACTACGAGATCTGTACCTTCCTGAAAAATGGAGCCACTCAGGGATGGGATGCC 1063	Qy 1064 CCTCAGGAAGTGCCTTATGCCTATCAGGCCAATGTGTGGGTTGGCTATGACAACATCAAG 1123	Qy 1124 AGCTTCGATATTAAGGCTCAATGGCTTAAGCACAACAAATTTGGAGGCGCCATGGTCTGG 1183
Db 841 ATAGGTGACCCTACTGTTAGTGCTGGACCACCAGGAAAGGAAATGAATG	OY 1004 TGGGCTTACTACGAGATCTGTACCTTCCTGAAAATGGGGCCACTCAGGGATGGC 1063	OY 1064 CCTCAGGAAGTGCCTTATGCCTATCAGGGCAATGTGTGGGTTGGCTATGACAACATCAAG 1123	QY 1124 AGCTTCGATATTAAGGCTCAATGGCTTAAGGACACAAAATTTGGAGGCGCCATGGTCTGG 1183 LO	QY 1184 GCCATTGATCTGGATGACTTCACTGGCACCAGGGCAAGTTTCCCCTAATC 1243	OY 1244 TCCACCCTGAAGAAGCCCTCGGCCTGCAAGTGCAAGTTGCACGGCTCCAGCTC 1298 1	AY065557 1209 bp mRNA linear ROD	protein precursor (Ym2) mR	S Mus musculus. ISM Mus musculus	RSE	AL CE	Direct Su AL Submitted National Taipei 11	FEATURES Location/Qualifiers source 11209 /organism="Mus musculus" /strain="BALB/c"	/db_xret="taxon:10090" /clone="pGEMT-ez-ym2.s" /tissue_type="stomach" gene 11200.	CDS 1.1209 /gene="Ym2" /gone="Ym2" /codon_start=1	/product="putaltyve secretory protein precursor" /protein_id="AAL5751.1" /db_xref="G1:18086514" /translation="MAKLILVYQLGSSYQLMCYYTSWAKDRPTEGSFKPG	NIDECLO: THILITERAMENNET ILDEGOLERIC FALMENCENTER TRANSFORMERGE PAPESSWYSTPORROTFIREMONITILE TENGENET ACCOUNTY FOR THE SERVING EMREAFEEESTLINHIPRILITSTGAGFIDVIREGEY RIPELSGSLDY TOVMIYOLHOPK NOTTGENETILENSPLIKESPIDIKE SALVINDSITTYKNDIGARSKILIVEDRILISDP GENOT TONDRUG ACCOUNTY AND STATEMENT AND	OUNT 326 8	OKIGIN Query Match 42.3%; Score 687.8; DB 10; Length 1209;

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Pred. No. 9.7e-119;
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Patent: US 637212-A 3 16-APR-2002;
Location/Qualifiers
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Description	Disease treatment	Disease treatment	Novel human coding	Disease treatment	Human digestive sy	DNA encoding novel	Human chitinase cl	MO-13B clone of hu	Human chitinase cD
SUMMARIES	AAH42025	AAH42013	ABN59993	AAH42023	AAK88635	ABK11713	AAV10436	AAZ21848	AAD03760
DB	22	22	24	22	22	24	19	50	22
% Query Match Length DB	1678	1368	1369	1469	746	638	1656	1656	1656
% Query Match	94.1	84.1	77.9	43.2	38.7	38.7	29.7	29.7	29.7
Score	1529.6	1366.4	1266.2	701.8	629.2	628.4	483	483	483
Result No.	7	7	e	4	S	9	7	80	6

Human chitinase CD Human cartilage gl DNA encoding a hum Human cartilage gl DNA encoding a hum Human cartilage gl Human cartilage gl Ad43 Mulline Oriduct spe Human cartilage gl Human cartilage gl Human cartilage gl	CDNA sequence is bounded than the motion of	ALIGNMENTS nucleotide SEQ ID NO: 16.	catment of bronchial asthma
ABL57 AAT893 AAT803 AAT803 AAD03 AAT80 AAV21 AAV21 AAV21 AAV21 AAV21 AAV21 AAV21 AAV21	AASSCALS AASSCALS AASSCALS AAGG0444 AAGG0442 AAGG04525 AAGG0525 AAGG0359 AAGG0359 AAGG0359 AAGG0359 AAGG0359 AAGG0359 AAGG0357 AAGG0359 AAGG033 AAGG033	g 6 0	45 W
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                                                            ATGACAACATCAAGAGCTTCGATATTAAGGCTCAATGGCTTAAGCACAAATTTGGAG
                                                                                                 AGGGATGGGATGCCCCTCAGGAAGTGCCTTATGCCTATCAGGGCAATGTGGGGTTGGCT
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                The present invention provides the sequence of a protein which can be used in the treatment and prevention of infectious diseases. Inhibitors of the protein can be used to treat bronchial asthma and chronic occlusive pulmonary disease. The present sequence is an oligonucleotide described in the exemplification of the invention.
                                                                                                                                   TGCTGACTGCAACCATGACAAAGCTTATTCTCCTCACAGGTCTTGTCCTTATACTGAATT
                                                                                                                                                                        TGCAGCTCGGCTCTGCCTACCAGCTGACATGCTACTTCACCAACTGGGGCCCAGTACCGGC
                                                                                                                                                                                  CAGGCCTGGGGCGCTTCATGCCTGACATCGACCCCTGCCTCTGTACCCACCTGATCT
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                                                                          Sequence 1678 BP; 397 A; 497 C; 418 G; 366 T; 0 other;
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                                                                                             Score 1529.6;
Pred. No. 0;
0; Mismatches
Page 107-108; 114pp; Japanese
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99.78;
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                  GCTTACTACGAGATCTGTACCTTCCTGAAAATGGAGCCACTCAGGGATGGGATGCCCCT
                           ATTGATCTGGATGACTTCACTGGCACTTTCTGCAACCAGGGCAAGTTTCCCCTAATCTCC
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                                                   CAGGAAGTGCCTTATGCCTATCAGGGCAATGTGTGGGTTGGCTATGACAACATCAAGAGC
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                                                                                                                                                                                                                                                                                                                                                                                                                              Human; antianaemic; vulnerary; antiinflammatory; immunomodulator; antiinfertility; cerebroprotective; cytostatic; rheumatic; gene t neuroprotective; antiparkinsonian; protein therapy; EST; expressed sequence tag; gene; ss.
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Wehrman T,
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                                                          The present invention provides the sequence of a protein which can be used in the treatment and prevention of infectious diseases. Inhibitors of the protein can be used to treat bronchial asthma and chronic occlusive pulmonary disease. The present sequence is an oligonucleotide described in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAGTCATCAAATTCCTGCGCCAGTATGAGTTTGACGGGCTGGACTTTGACTGGGAGTAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTTGGATTCCCTACCTATGGACACAACTTCATCCTGAGCAACCCCTCCAACACTGGAATT
                  treatment of bronchial asthma,
                                                                                                                                Length 1368;
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                                                                                                             BP; 324 A; 398 C; 349 G; 297 T; 0 other;
                          infectious disease
                                                                                                                               DB 22;
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Pred. No. 0;
0; Mismatches
                and DNA for
disease and
                                        Page 100; 114pp; Japanese
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99.9%;
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                 eins, peptides
occlusive lung
WPI; 2001-397791/42
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Matches 1367; Conserv
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chronic occlus
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                                                                          novel human proteins. These were isolated from expressed sequences tags (ESTs). They can be used to stimulate cell growth, to regulate haematopolesis e.g. to treat aplastic anaemia, to help tissue regrowth e.g. in burn treatment, to regulate the immune system e.g. to treat multiple sclerosis, to regulate activin or inhibin e.g. to treat infertility, to regulate haemostasis or thrombolysis e.g. to treat stroke and cancer, to screen for drugs, to treat inflammatory conditions e.g. rheumatoid arthritis, and to treat nervous system disorders e.g. Parkinson's disease. The present sequence is a coding sequence of the
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                                                                   coding sequences of 444
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polypeptide such as cancer and multiple sclerosis
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                                                               provides the protein and
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Pred. No. 0;
0; Mismatches
                                NO 404; 509pp; English.
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Best Local Similarity 99.0%;
Matches 1274; Conservative
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chronic colitis;
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                                      AAGAGCTTCGATATTAAGGCTCAATGGCTTAAGCACACAAAATTTGGAGGCGCCATGGTC
                                                                                                                      1026 AGGAGCTTCAAGTTGAAGGCTCAGTGGCTCAAGGACAACAATTAAGGAGGTGCCGTGGTC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human digestive system antigen coding sequence SEQ ID
                                                                                                                                                                                                                                                                                                                                                            BP.
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2000US-0189874.
2000US-0190076.
2000US-0198123.
2000US-0205515.
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20000S-0224518.
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2000US-0225758.
2000US-0225759.
2000US-0226279.
2000US-0226681.
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2000US-0180628.
2000US-0184664.
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2000US-0215135.
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19-MAY-2000;
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30-JUN-2000;
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14-AUG-2000;
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04-FEB-2000;
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used in the treatment and prevention of infectious diseases. Inhibitors of the protein can be used to treat bronchial asthma and chronic occlusive pulmonary disease. The present sequence is an oligonucleotide described in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                       GAGTACCCTGGCTCTCGTGGGAGCCCTCCTCAGGACAAGCATCTCTTCACTGTCCTGGTG.
                                                                                                                                                                                    ACCATGACAAAGCTTATTCTCCTCACAGGTCTTGTCCTTATACTGAATTTGCAGCTCGGC
                                                                                                                                                                                                                                                                                        TCTTCCTACCAGCTGATGTGCTACTATACCAGTTGGGCTAAGGACAGGCCAATAGAAGGG
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                                                                                   Sequence 1469 BP; 406 A; 331 C; 332 G; 400 T; 0 other;
                                                                                                                                    Pred. No. 1.3e-188;
0; Mismatches 307;
                                                                                                                 11arity 74.3%; Score 701.8; 74.3%; Pred. No. 1.36 Conservative 0; Mismatches
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13-OCT-2000;
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The present invention provides the protein and coding sequences of a number of human digestive system antigens. These can be used in the diagnosis, treatment and prevention of digestive system disorders, including cancer, Meckel's diverticulum, bacterial or parasitic infections, appendicitis, Hirschsprung's disease, chronic colitis or ulcerative colitis. The present sequence is a cDNA encoding a digestive system antigen of the invention.
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Pred. No. 3.8e-168;
5; Mismatches 28;
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Matches 643; Conservative
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P-PSDB; AAM92862.
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151 GAAGTGCCTTATGCCTATCAGGGCAATGTGTGGGGTTGGCTATGACAACATCAAGAGCTTC

1070 GAAGTGCCTTATGCCTATCAGGGCAATGTGTGGGTTGGCTATGACAACATCAAGAGCTTC

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                                                                                                                                                                                                                             GGGCTTGTCTTCGACACCAGCTGTGATTGCTGCAACTGGGCATAAACCTGACCTGGTCTA 1549
                                                                                                                                                                                                                                                                     TATTCCCTAGAGITCCAGICTCTTTTGCTTAGGACAIGTIGCCCCTACCTAAAGICCTGC 1609
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GATATTAAGGCTCAATGGCTTAAGCACAACAAATTTGGAGGCGCCATGGTCTGGGCCATT 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Secreted protein; gene therapy; immunostimulant; human; stroke; immune system disorder; immunologic deficiency syndrome; anaemia; ataxia telangiectasia; HIV; human immunodeficiency virus; heart attack; Wiskott-Aldrich disorder; HIV; human immunodeficiency virus; heart attack; autoimmune disease; andisorder; Algiesase; encephalomyelitis; Iupus; multiple sclerosis; autoimmune thyroiditis; diabetes; inflammation; mephritis; ischaemia; hypergammaglobulinaemia; Crohn's disease; sarcoidosis; Gaucher's disease; cardiovascular disease; telangiectasia; persistent truncus arteriosus; arrhythmias; angina pectoris; tumour; mayocardial infarction; hypertension; neovascularisation; anglogensis;
                                                                                                                                             AGCTCGGGAGGCAGTGGATTCTGTGTGTCAGAGCCAACGGCCTCTACCCCGTGGCAAAT
                                                                                                                                                       cancer; ocular anglogenic disease; hyperproliferative disorder; diabetic retinopathy; uverlits; rheumatoid arthritis; psoriasis; wound healing; endometriosis; vasculogenesis; atherosclerosis; nervous system disease; parkinson's disease; Alzheimer's disease;
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/label= mature_human_secreted_protein
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The invention describes eight novel human secreted polypeptides (I). (I)

and the polynucleotides encoding them are useful for treating, disorders,

including disorders of immune system e.g. immunologic deficiency

syndrome, ataxia telangiectasia, HIV infection (human immunodeficiency

ovinus), Wiskott-Aldrich disorder, anaemia, thyrombocytopenia, heart

attacks (infarction), strokes, or scarring; autoimmune diseases e.g.

Addison's disease, encephalomyelitis, multiple sclerosis, autoimmune

C thyroiditis, lupus, erythematosus, insulin dependent diabetes mellitis;

disorders of inflammation e.g. nephritis, ischaemia-reperfusion injury,

C thyroiditis, lupus, erythematosus, insulin dependent diabetes mellitis;

C thyroiditis, lupus, erythematosus, insulin dependent diabetes mellitis;

C thyroiditis, lupus, erythematosus, insulin dependent diabetes mellitis;

C thyroiditis, lupus, erythematosus, insulin apportoris, myocardial infarction,

C truncus arteriosus, arrhythmias, andiana pectoris, myocardial infarction,

Nypertension, telangiectasia, ischaemia includes cerebral ischaemia,

c mucocutaneous lymph node syndrome; disorders and/or conditions associated

with neovascularisation; cancers which involve angiogensis, benign

tumours, ocular angiogenic diseases, hyperproliferative disorders,

c diabetic retinopathy, uveltis, rheumatoid arthritis, psoriasis, delayed

c wound healing, endometriosis, vasculogenesis, atherosclerosis; nervous

c system diseases, degeneration associated with Parkinson's disease,

Alcheimer 's disease and infectious diseases. In the processis and the processis and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel human secreted proteins useful for treating immune system eanaemia, cardiovascular e.g. myocardial infarction, neurological disorders e.g. Alzheimer's disease, Parkinson's disease -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
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Pred. No. 5.9e-168;
0; Mismatches 1;
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or cells expressing them or to generate transgenic ('knockout') rodents. It can also be used in hybridisation assays and to detect genetic alterations in the chitinase gene related to disease. Agents that inhibit this protein may be useful in treatment of Gaucher's disease and rheumatoid arthritis, where overexpression of the protein can damage antifungal agents and may allow a reduction in the dose of such agents, and thus of their side effects.
                                                                                                                                                                                                                                                                                                                                                             84 GACTGGTGCTGCAACCATGACAAAGCTTATTCTCCTCACAGGTCTTGTCCTTATAC
                                                                                                                                                                                                                                                           TGATCTACGCCTTTGCTGGGAGGCAGAACAACGAGATCACCACCATCGAATGGAACGATG
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                                                                                                                 Sequence 1656 BP; 365 A; 497 C; 447 G; 347 T; 0 other;
                                                                                                                                          Score 483; DB 19;
Pred. No. 1.8e-126;
                                                                                                                                                                   0; Mismatches 545;
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60.2%;
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870; Conservative
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 GCAGCTCTGGAGGCAGCTCGGGAGGCAGTGGATTCTGTGCTGTCAGAGCCAACGGCCTCT
             ACCCCGTGGCAAATAACAGAAATGCCTTCTGGCACTGCGTGAATGGAGTCACGTACCAGC
                                                               Chitinase; human; fungal infection; immunogen; diagnosis; treatment; Gaucher's disease; transgenic; detection; hybridisation; antifungal; rheumatoid arthritis; overexpression; extracellular matrix; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic acids encoding h_{\rm uman}^{\rm i} chitinase – useful as antifungal agents, especially in combination with other antifungals
                                                                                                                                                                                                    Location/Qualiflers
27..1427
4*tag= a
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                                                                                                                                                                                                                                                                                                                                                                       Human chitinase clone MO-13B cDNA.
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                   ATGCCAAGGAGTCTGGGATCTGGGCTTACTACGAGATCTGTACCTTCCTGAAAAATGGAG 1043
                                                                                      TTGGCTATGACAACATCAAGAGCTTCGATATTAAGGCTCAATGGCTTAAGCACAACAAAT 1163
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CCTCCTCATCAGACACCAGAGTGGGGGCCCCAGCCACAGGGTCTGGCACTCCAGGCCCCT
                                  907 TCACCAAGGAAGGAGGGATGCTGGCCTACTATGAAGTCTGCTCCT-----GGAAGGGGG
                                                   CCACTCAGGGATGGGATGCCCCTCAGGAAGTGCCTTATGCCTATCAGGGCAATGTGTGGG
                                                                   961 CCACCAAACAGAATCCAGGATCAGAAGGTGCCCTACATCTTCCGGGACAACCAGTGGG
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/note= "Signal peptide"
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This is the nucleotide sequence of an allelic form of the human chitnase enzyme, which is capable of degrading Chitin (a linear homo polymer of beta-1,4-linked N-acety1glucosanine residues).

Chitinase fragments can be used to screen for proteins or other molecules that specifically bind to the chitin-binding domain of human chitinase or that modulate its activity. These compounds are useful for munuization, as well as for purifying chitinase, as well as for detection and quantification of Chitinase. Polymucleotide fragments of detection are useful as a source of probes and primers, and to express the proteins recombinantly. The chitinase fragments, when conjugated to antifungal compounds, are used to treat animals, especially humans, infected with chitin-containing parasites such as fungil. Fungal infection treated include candidiasis, aspergillosis, coccidiodomycosis, blastomycosis, paracoccidiodomycosis, blastomycosis, paracoccidiodomycosis, continue and dermatophytoses.

Coccidiodomycosis, blastomycosis, paracoccidiodomycosis, chitin can be degraded by the enzyme chitinase. Use of whole chitinase protein for treating infections, especially fungal infections, is problematic. In view of the increasing incidents of life-threatening containing in edgraded by involved incidents of life-threatening chitin-binding fragments of the present invention provide this need.
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                                                                                                                                                                                                                                                                                                                                                                                     Novel chitin-binding fragments of human chitinase used to treat fungal
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99WO-US05343,
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product, comprising a human chitinase fused to at least a portion of an immunoglobulin chain. The fusion product is useful for treating fungal infections (mycoses) such as candidiasis, aspergillosis, blastoomycosis, coccidioidomycosis, paracoccidioidomycosis, phistoplasmosis, mucormycosis, cryptococcosis, chromoblastomycosis, sporotrichosis and dermatophycoses antifungal agent needed to exert an antifungal activity. The fusion protein is useful for reducing the amount of non-chitinase protein is also useful for preparing a medicament for the prophylactic or therapeutic treatment of fungal infections. Chitinase immunoglobulin fusion product has unexpectedly improved serum half-life and formulation properties. The present sequence is human chitinase converse pMO-13B. Chitinase enzyme degrades chitin which is a homopolymer of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel chitinase immunoglobulin fusion product, useful for treating fungal infections and reducing the amount of a non-chitinase antifungal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               present invention relates to a chitinase immunoglobulin (Ig) fusion
                                                                                                                                                                  fungal infection; candidiasis; aspergillosis; coccidioidomycosis; blastomycosis; cryptococcosis; chromoblastomycosis; sporotrichosis; mucormycosis; dermatophytoses;
                                                                                                                                                                                                                                                                                                                                                                                              "Human mature chitinase from clone pMO-13B"
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Pred. No. 1.8e-126;
0; Mismatches 545;
                                                                                                                                                      antifungal; chitinase; immunoglobulin;
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                                                                                                                        Human chitinase cDNA from clone pMO-13B
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                               BP.
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                               CDNA; 1656
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60.2%;
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                               AAD03760 standard;
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Best Local Similarity
Matches 870; Conserv
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       The present sequence is that of cDNA clone Mo-13B (ATCC 98078)

cncoding human chitinase (see ABB76292). The clone was isolated from a cDNA library prepared from peripheral blood monocyte-derived macrophages using a probe based on human chitinase clone Mo-218

(see ABL57380). The 2 clones contain a single nucleotide difference in the coding region, causing amino acid position Bl of the mature protein to be either series or glycine. Northern blots showed highest chitinase gene expression in lung and ovary tissues. Expression in lung is consistent with a protective role against pathogenic organisms that contain chitin. The invention provides human chitinase polynuclectides and polypeptides, and materials and methods for the recombinant production of human chitinase products for treating fungal infections or for the development of such products. Human chitinase has a synergistic effect on the actions of other fungicides. It can be administered to improve the antifungal amphotericin B or itraconazole, in the treatment of a fungal activity of a non-chitinase antifungal agent, especially amphotericin B or itraconazole, in the treatment of a fungal infection such as candidiaals, aspergillosis, coccidicidomycosis, blastomycosis, chromoblastomycosis, sporotrichosis, mucormycosis, chromoblastomycosis, sporotrichosis, mucormycosis, caryptococcosis, chromoblastomycosis, sporotrichosis, mucormycosis, caryptococcus spp., whose growth is not effectively in thibited by contact with human chitinase alone.
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                                                                                                                                                                                                                                                                                                                                                                                                       is a preferred variant of the chitotriosidase conn sequence given in AAT89180. Also claimed are: (1) a method of diagnosing a tissue remodelling disorder related to expression of a mutated conflictuation; and (2) a method of detecting out nucleic acid amplification; and (2) a method of detecting altered expression of a chitotriosidase protein in a host comprising contacting a bodily sample with an antibody. Chitotriosidase can degrade extracellular matrix substrates with a similar carbohydrate structure to chitin. It can be used to develop products which can be used in the diagnosis and treatment of tissue remodelling disorders such as rheumatoid arthritis or atherosclerosis. Chitotriosidase nucleic acids can be used in the recombinant production of the enzyme, and as probes or primers in diagnostic
                                                                                                                                                                                                                                                                                                           New isolated human chitotriosidase gene - used to develop products for the diagnosis and treatment of tissue remodeling disorders, e.g.
                                                                                                                                                                                                                                                                                                                                                                                             human cDNA sequence encodes chitotriosidase (see AAW31498).
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Pred. No. 3.6e-126;
1; Mismatches 541;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A cDNA clone (AAT50833), designated chi.50, codes for a 50 kDa human chitinase (AAW08584) that is stable to many proteases, active at pH 3 8 and up to 50 deg, and stable in the circulation. Clones chi.50 and chi.39 (see also AAT50834) were isolated from a human macrophage cDNA library using as probe a partial clone obtd. using primers (see also AAT50835-36) based on a chitotriosidase purified from a type 1 Gaucher disease pattent. The 2 cDNA clones are the result of alternative splicing of RNA. Chitinase nucleic acid can be used incorporated into a gene therapy vector to treat or prevent infection by chitin-contg. pathogens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New human chitinase - used to treat or prevent infection by chitin-contg. pathogens, in diagnosis and as additives to cosmetics, foods, implants etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 18; Length 1643;
                                                                                                                                                             gene therapy; vaccine; lysosomal lipidosis; Gaucher's disease; leishmaniasis; sarcoidosis; X-linked adrenoleukodystrophy; multiple scierosis; drug delivery; cosmetics; food; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1643 BP; 364 A; 490 C; 442 G; 347 T; 0 other;
                                                                                                                                                Chitinase; chitotriosidase; chitin; infectious
                                                                                                                                                                                                                                           Location/Qualifiers
13.1413
7*tag= a
13.75
7*tag= b
7*tag= c
7*tag= c
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                                                                                                                       Human chitinase cDNA clone chi.50.
                                       BP.
                                       AAT50833 standard; cDNA; 1643
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Matches 866; Conserv
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P-PSDB; AAW08584.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This sequence encodes a novel human chitinase isolated from clone MO-218. Chitinases are useful for treating or preventing fungal infection and as immunogens for generating antibodies which are used to purify, detect and quantify chitinases, e.g. for diagnosis of Gaucher's disease. The nucletc acid sequence of the chitinase is also useful as a probe to identify and isolate genomic DNA encoding chitinases or similar proteins, or cells expressing them or to generate transgenic ('knockout') rodents. It can also be used in hybridisation assays and to detect genetic alterations in the chitinase gene related to disease. Agents that inhibit this protein may be useful in treatment of Gaucher's disease and
CCAGCTCAGCCCATTGAGCCAATAACTGCTGCTCCCAGTGGCAGCGGGAACGGGAGCGGG
                                                                                                                     CAGCAGAACTGCCAGGCCGGGCTTGTCTTCGACACCAGCTGTGATTGCTGCAACTGG 1528
                                                                                                                                  1352 AGTAGCAGCTCTGGAGGCAGCTCGGGAGGCAGTGGATTCTGTGCTGTCAGAGCCAACGGC
                  CCAG---AGCTTGAAGTTCCAAAACCAGGTCAGCCCTCTGAACCTGAGCA------
                                                                                                                                                                                                                                                                     Chitinase; human; fungal infection; immunogen; diagnosis; treatment; Gaucher's disease; transgenic; detection; hybridisation; antifungal; rheumatoid arthritis; overexpression; extracellular matrix; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   acids encoding human chitinase - useful as antifungal especially in combination with other antifungals
                                                                                                                                                                                                                                                                                                                                                                                                    /product= chitinase
/note= "from clone MO-218"
                                                                                                                                                                                                                                                                                                                                ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 3; Page 38-40; 63pp; English.
                                                                                                                                                                                                                                                    Human chitinase clone MO-218 cDNA,
                                                                                                                                                                                         AAV10435 standard; cDNA; 1636
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                                                                                                                                                                                                                                                                     83
                   the extracellular matrix. Chitinase also improves the activity of other antifungal agents and may allow a reduction in the dose of such agents, and thus of their side effects.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGACCTATGTGGATGCTGGATACGAGGTGGACAAAATCGCCCAGAACCTGGATTTTGTCA
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                                                                                                                                                                                                                                                                       24 CAGGITICAIGGICCIGCIGAIGAICCAIGGGGCICIGCIGCAAAACIGGICIGCIACI
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rheumatoid arthritis, where overexpression of the protein can damage
                                                                                                                                                                                     30;
                                                                                                                                          Length 1636;
                                                                                                                                                                                     Indels
                                                                                                   Sequence 1636 BP; 361 A; 491 C; 440 G; 344 T; 0 other;
                                                                                                                                          Query Match 29.6%; Score 481; DB 19; Best Local Similarity 60.8%; Pred. No. 6.6e-126; Matches 853; Conservative 0; Mismatches 520;
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AGGAGGCCAAGCAGATCAACAAGCCCAGGCTGATGGTCACTGCTGCAGTAGCTGCTGCAG
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CCT-----GGAAGGGGCCACCAAACAGAGAATCCAGGATCAGAAGGTGCCCTACATCT 977
                 1086 ATCAGGGCAATGTGTGGGTTGGCTATGACAACATCAAGAGCTTCGATATTAAGGCTCAAT
                                                                                    CTGGCACTTTCTGCAACCAGGGCAAGTTTCCCCTAATCTCCACCCTGAAGAAGGCCCTCG
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                                  978 TCCGGGACAACCAGTGGGTGGGCTTTGATGATGTGGAGAGCTTCAAAACCAAGGTCAGCT
                                                                                                                                                                                                                                                                                                                                                                                         chemotherapy;
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organ transplant; parasite; chitin-binding; allele; vector;
truncated protein; ds.
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/product= Mature_protein
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This is the nucleotide sequence of an allelic form of the human chithnase enzyme, which is capable of degrading Chitin (a linear homo polymer of beta-1,4-linked N-acetylglucosamine residues).

Chitinase or beta-1,4-linked N-acetylglucosamine residues).

Chitinase fragments can be used to screen for proteins or other molecules that specifically bind to the chitin-binding domain of human confirmation, as well as for purifying chitinase, as well as for purifying chitinase, as well as for the invention and quantification of chitinase. Polynucleotide fragments of the invention are useful as a source of probes and primers, and to express the proteins recombinantly. The chitinase fragments, when conjugated to antifungal compounds, are used to treat animals, especially humans, infected with chitin-containing parasites such as coccidioldomycosis, blastomycosis, paracoccidioldomycosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              245
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mucormycosis, histoplasmosis, cryptococcosis, chromoblastomycosis, sporotrichosis, and dermatophytoses. Chitin can be degraded by the enzyme chitinase. Use of whole chitinase
                                                                                                       fragments of human chitinase used to treat fungal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein for treating infections, especially fungal infections, is problematic. In view of the increasing incidents of life-threatening fungal infection in e.g. immunocompromised individuals, there exists a need for identifying new compounds for treating fungal infection. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14 CCAGCCTTTGCACCCACCTCATCTACGCCTTCGCTGGCATGACCACCACCAGCTGAGCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           264 CCAAGCTGAAGACCCTGTTAGCCATCGGAGGCTGGAATTTCGGCACTCAGAAGTTCACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          126 CAGGTCTTGTCTTATACTGAATTTGCAGCTCGGCTCTGCCTACCAGCTGACATGCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24 CAGGTTTCATGGTCCTGCTGATGATCCCATGGGGCTCTGCTGCAAAACTGGTCTGCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              186 TCACCAACTGGGCCCAGTACCGGCCAGGCCTGGGGGCGCTTCATGCCTGACAACATCGACC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chitin-binding fragments of the present invention provide this need.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1636;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1636 BP; 361 A; 491 C; 440 G; 344 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 481; DB 20;
Pred. No. 6.6e-126;
); Mismatches 520;
                                                                                                                                                                                                                  Example 1; Page 55-57; 83pp; English
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60.8%;
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                                                                                                                                                 infections in animals
                                                                                                       Novel chitin-binding
WPI; 1999-551417/46.
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605 503

pMO-218"

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The present invention relates to a chitinase immunoglobulin (Ig) fusion product, comprising a human chitinase fused to at least a portion of an immunoglobulin chain. The fusion product is useful for treating fungal infections (mycoses) such as candidisals, aspergillosis, blastomycosis, coccidioidomycosis, paracoccidioidomycosis, histoplasmosis, mucormycosis, cryptococcosis, chromoblastomycosis, sportrichosis and dermatophytoses. The fusion protein is useful for reducing the amount of non-chitinase antifungal agent needed to exert an antifungal activity. The fusion protein is also useful for preparing a medicament for the prophylactic or therapeutic treatment of fungal infections. Chitinase immunoglobulin fusion product has unexpectedly improved serum half-life and formulation properties. The present sequence is human chitinase cons from chone pMO-218. Chitinase enzyme degrades chitin which is a homopolymer of beta-(1,4)-linked N-acetylglucosamine residues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTGCCTCTGTACCCACCTGATCTACGCCTTTGCTGGAGGCAGAACAACGAGATCACCA 305
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel chitinase immunoglobulin fusion product, useful for treating fungal infections and reducing the amount of a non-chitinase antifungal agent needed for the treatment
fungal infection; candidiasis; aspergillosis; coccidioidomycosis; blastcomycosis; paracoccidioidomycosis; histoplasmosis; cryptococcosis; chromoblastcomycosis; sporotrichosis; mucormycosis; dermatophytoses; clone pMO-218; ss.
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/product= "Human chitinase from clone pMO-218"
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/product= "Human mature chitinase from clone
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1636 BP; 361 A; 491 C; 440 G; 344 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                      Steiner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Match 29.6%; Score 481; DB 22; Local Similarity 60.8%; Pred. No. 6.6e-126; tes 853; Conservative 0; Mismatches 520;
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                                                                                                 Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human chitinase cDNA from clone pMO-218.
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1374 ACTCCTGCAAATGCTGCACTGG 1396
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Search completed: July 3, 2003, 05:03:18 Job time: 377.46 secs 39, 34,

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Scoring table:

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Database

Perfect score:

Sequence:

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ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 233 South Wacker Drive/6300 Sears Tower
CITY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Gray, Patrick W.
APPLICANT: Tjoelker, Larry W.
TILLE OF INVENTION: CHITINASE CHITIN-BINDING FRAGMENTS
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/039,198A
FILING DATE:
                                                                            US-09-292-225-14
US-09-292-225-16
US-09-292-225-40
US-09-292-225-42
US-09-292-225-39
US-09-292-225-34
US-09-292-225-34
US-09-292-225-34
US-07-939-501A-6
US-07-939-501A-14
US-07-939-501A-14
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US-07-939-501A-11
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ATTORNEY/AGENT INFORMATION:
NAME: Rin-Laures, Li-Hsien
REGISTRATION NUMBER: 33,547
REFERENCE/POCKET NUMBER: 27866/34391
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
TELEFAX: (312) 474-6448
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1656 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                     ALIGNMENTS
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COONTRY: United States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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  STRANDEDNESS:
                                               NAME/KEY:
LOCATION:
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Sequence 15,
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Sequence 4
Sequence 4
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/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
                      GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
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US-08-694-915-1
US-08-694-915-3
PCT-US94-07754-4
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US-09-343-623-3
US-09-039-198A-1
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US-09-151-011-5
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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Gaps

30;

Length 1656;

Score 483; DB 4; Length 16 Pred. No. 4.6e-132; 0; Mismatches 545; Indels

Query Match 29.7%; Best Local Similarity 60.2%; Matches 870; Conservative

NAME/KEY:

LOCATION:

US-09-039-198A-3

Sequence 3

477.2 477.2 477.2 369 354.8 339.8

Score

Result No.

481.4 481.4 481.4 481.4

Sequence Sequence

Sequence

US-09-545-814-30

127.2 120.6 120.6

Qy 1164 TTGG Db 1081 TGG Qy 1224 AGG Qy 1284 GCA Qy 1201 CAG Qy 1344 GGA Qy 1404 CCA Qy 1404 CCA Qy 1464 TCA Qy 1464 TCA Qy 1526 TGG Qy 1524 TCA Qy 1524 TCA Qy 1524 ACTG Qy 1524 ACTG	SUL - 08 Seq GE GE	COMPUTER REAL COMPUTER: CO	TELEPHONE: TELEFA: 3 TELEF: 25 TELER: 25 TELER: 15 TELER: 16 TELEFICATION FOR SEQUENCE CHARLES TOPOLOGY: TOPOLOGY: MOLECULE TYPE MOLECULE TYPE TERTURE: MOLECULE TYPE
	444 AGAACCGCCAGACTTTCATCACTCAGTCAAATTCCTGCGCCAGTATGAGTTTGACG 503	TCCATGGCTCCTGGGAGGCTACACTGGAGAACAGCCCCCTCTACAAATACCCGACTG	984 ATGCCBARAATGGGGTTTGGGCTTATTGGGGTTTGTTGTGTGGAAAATGGGG 1043
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ACCTACCAGCAGAACTGCCGGGCCTGTCTTCGACACCAGCTGTGATTGCTGCA 1523
3GAGGCGCCATGGTCTGGGCCATTGATCTGGATGACTTCACTGGCACTTTCTGCAACC 1223
                                                                                       GCCAAGTTTCCCCTAATCTCCACCTGAAGAAGGCCCTCGGCCTGCAGAGTGCAAGTT 1283
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VENTION: Chitinase Materials and Methods
EQUENCES: 17
NCE ADDRES: 1
NAISHABIL, O'Toole, Gerstein, Murray & Borun
6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Illinois
: United States of America
60606-6402
READABLE FORM:
TYPE: Floppy disk
RE: IBM PC compatible
NG SYSTEM: PC-DOS/MS-DOS
E: PatentIn Release #1.0, Version #1.25
PPLICATION DATA:
ILON NUMBER: US/08/877,599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ICATION: 514
ICATION DATA:
ICATION DATA:
ITON NUMBER: US 08/663,618
AATE: 14-UNW-1996
AGENT INFORMATION:
ARD-LEARCES, LI-HSIGN
ATION NUMBER: 33,547
ELPOCKET NUMBER: 27866/33994
NICATION INFORMATION:
NE: 312/474-6300
NES: 316/66 Dase pairs
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I656 base pairs
NUCLEIC acid
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TGGGCGGGGCCATGGTCTGGGCACTGGACTTAGATGACTTTGCCGGCTTCTCCTGCAACC 1140
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                                          961 ccaccaaacagagaarccaggarcagaaggrgcccracarcrrcgggacaaccagrgg
                                                                          TTGGCTATGACAACATCAAGAGCTTCGATATTAAGGCTCAATGGCTTAAGCACAAAAT
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Pred. No. 4.6e-132; 0; Mismatches 545;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Gray, Patrick W.
APPLICANT: TJOelker, Larry W.
TITLE OF INVENTION: CHITINASE CHITIN-BINDING FR.
FILE REFERENCE: 27866/35407
CURRENT APPLICATION NUMBER: US/09/267,574
CURRENT FILING DATE: 1999-03-12
EARLIER PELLING DATE: 1998-03-12
NUMBER OF SEQ ID NOS: 39
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Sequence 3, Application US/09267574; Patent No. 6399571; GENERAL INFORMATION:
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larity 60.2%;
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LOCATION: (27)..(1424)
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US-09-267-574-3
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870; Conserv
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Best Local S:
Matches 870;
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                                                                                                                       Gaps
                                                                                                                      30;
                                                                                      Length 1656;
                                                                                      Score 483; DB 4; Length 16
Pred. No. 4.6e-132;
0; Mismatches 545; Indels
                                                                                     Query Match 29.7%;
Best Local Similarity 60.2%;
Matches 870; Conservative
                             mat_peptide
90..1424
27..1424
 ; LOCATION:
; FEATURE:
; NAME/KEY:
; LOCATION:
US-08-877-599-3
LOCATION:
FEATURE:
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1141	pplication US/08486839 28928 RMATION: WENTION: WENTION: A human chitinase, its re NVENTION: production, its use for d NVENTION: in therapy or prophylaxis ENCE ADDRESS: E: Hoffmann & Baron 350 Jericho Turnpike ericho New York United States of America 758 EADABLE FORM: FEB PC Compatible 3 SYSTEM: PC-DOS/MS-DOS	SOFTWARE: Patentin Release #1.0, Version #1.30
144 TGAATTTGCAGCTCGGCTCTGCCTACCAGCTGACTTCACCAACTGGCCCAGT 203	10 1 1 1 1 1 1 1 1 1	127 AGGCAGGCAGCAGCAGCAGCAGCAGCAGCAGCAGAGG 19

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TITLE OF INVENTION: A Human Chitinase, Its Recombinant
TITLE OF INVENTION: Production, Its Use For Decomposing Chitin, Its Use in
TITLE OF INVENTION: Therapy or Prophylaxis Against Infection Diseases.
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                          ITICCCCTAATCTCCACCCTGAAGAGGCCCTCGGCCTGCAGAGTGCAAGTTGCACGGCT 1291
                                1352 AGTAGCAGCTCTGGAGGCAGCTCGGGAGGCAGTGGATTCTGTGCTGTCAGAGCCAACGC 1411
                                                                                                                                                          CTCTACCCCGTGGCAAATACAGAAATGCCTTCTGGCACTGCGTGAATGGAGTCACGTAC 1471
                                                                      CCAGCTCAGCCCATTGAGCCAATAACTGCTGCTCCCAGTGGCAGCGGGAACGGGAGCGGG 1351
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                                                                                                   CCAG---AGCTTGAAGTTCCAAAACCAGGTCAGCCCTCTGAACCTGAGCA----
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Pred. No. 1.3e-131;
0; Mismatches 541;
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APPLICATION NUMBER: US/09/151,011
FILING DATE: 10 - September - 199
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \Gamma_{LP}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: MOITISS, Robert C.
REGIGSTRATION NUMBER: 42,910
REFERENCE/DOKET NUMBER: 294-32
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Hoffmann & Baron, I
                                                                                                                                                                                                                                                                                                                                                     XS/09151011
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-
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TELEFAX: (516) 822-3582
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
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larity 60.3%;
Conservative
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COMPUTER READABLE FORM:
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Patent No. 6057142
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Best Local Similarity
Matches 866; Conserv
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                                                                                                                                                                                                                                                                                                                                                                   Patent No. 6057142
GENERAL INFORMATION:
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CITY: SY
STATE: N
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                            CAGCTCGGCTCTGCCTACCAGCTGACATGCTACTTCACCAACTGGGCCCAGTACCGGCCA
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CTGAGCTGCATCATGGTGCGGTCTGTGCCCTGGGCAGGTTTCATGGTCCTGCTGATGATC
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Length 1643; Indels

	RESULT 6 US-09-343-623-3 US-09-343-623-3 Sequence 3, Application US/09343623 SEGUENCE INFORMATION: A human chitinase, its recombinant TITLE OF INVENTION: A human chitinase, its recombinant TITLE OF INVENTION: In therapy or prophylaxis against infection diseases. NUMBER OF SEQUENCES: 16 CORRESPONDENCE ADDRESS: ADDRESSEE: Hoffmann & Baron STREET: 350 Jericho Turnpike CITT: Jericho STATE: New York COUNTRY: United States of America ZIP: 11758 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC COMPATIBLE OF COMPUTER: SEGUENCES.	Patenti Danumber Danumber Danumber Danumber Danumber Danumber Docker Calon Number Con Number Con Number Con Number Con Number Con Number Con Calon Docker Calon Danumber Calon Danumber Ca	HYPOTHETICAL: NO US-09-343-623-3 Query Match 29.6%; Score 481.4; DB 4; Length 1643; Best Local Similarity 60.3%; Pred. No. 1.3e-131; Matches 866; Conservative 0; Mismatches 541; Indels 30; Gaps 3; Qy 92 CTGACTGCAACCATGACAAGCTTATTCTCCTCACAGGTCTTGTCCTTATACTGAATTTG 151
1 0 1 0 1 0 1 0		1 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	71 31 91
152 CAGCTGGGCTCTGCTACCAGCTGACTGCTACCAACTGGGCCCAGTACCGGCCA	452 CAGACTTTCATCACCTCAGTCAAATTCCTGCGCCAGTATGAGTTTGACGGGCTGGAC 511		1112 GACAACATCAAGAGCTTCGATATTAAGGCTCAATGGCTTAAGCACAACAAATTTGGAGGC
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CTCTACCCCGTGGCAAATAACAGAAATGCCTTCTGGCACTGCGTGAATGGAGTCACGTAC 1471
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                           TACCCCCTCATCCAGACGCTACGCCAGGAACTGAGTCTTCCATACTTGCCTTCAGGCACC 1194
                                                                                      1195 ccag---agcittgaagttccaaaaccaggtcagcccrcrgaacctgagca----- 1241
TITCCCCTAATCTCCACCCTGAAGAAGGCCCTCGGCCTGCAGAGTGCAAGTTGCACGCCT 1291
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                                                                                                                                                                                                                                            1472 CAGCAGAACTGCCAGGCCGGGCTTGTCTTCGACACCAGCTGTGATTGCTGCAACTGG 1528
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                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Gray, Patrick W.
APPLICANT: Tjoelker, Larry W.
TITLE OF INVENTION: CHITINASE CHITIN-BINDING FRAGMENTS
NUMBER OF SEQUENCE: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Born
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       E: Marshall, O'Toole, Gerstein, Murray
233 South Wacker Drive/6300 Sears Tower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patentin Release #1.0, Version #1.30
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Pred. No. 1.8e-131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/039,1982
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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GENERAL INFORMATION:
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NAME: Rin-Laures, Li-Hsien
REGISTRATION NUMBER: 33,547
REFERENCE/DOCKET NUMBER: 27
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: (312) 474-6300
TELEFAX: (312) 474-048
INFORMATION FOR SEO ID NO: 1:
SEQUENCE CHARACTERISTICS:
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60.8%;
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MEDIUM TYPE: Floppy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Chicago
STATE: Illinoi
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US-09-039-198A-1
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US-09-039-198A-1
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PRIOR'APPLICATION DATA:
APPLICATION NUMBER: US 08/663,618
FILING:DATE: 14-UN-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                         STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
                                                                                                                                                                                                                                                                                                      Sequence 1, Application US/08877599
Patent No. 6372212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Rin-Laures, Li-Hsien
REGISTRATION NUMBER: 33,547
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TELECOMMUNICATION INFORMATION:
                                                                                               1215 CCTCTGAACCTGAGCA---
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TELEFAX: 312/474-0448
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 1636 base pairs
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CITY: Chicago
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LOCATION:
FEATURE:
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US-08-877-599-1
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GCCTGCAGAGTGCAAGTTGCACGGCTCCAGCTCAGCCCATTGAGCCAATAACTGCTGCTC
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APPLICANT: Gray, Patrick W.
TITLE OF INVENTION: Chitinase Materials and Methods
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
GURRENT APPLICATION NATA:
APPLICATION NUMBER: US/08/877,599
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GCCTGCAGAGTGCAAGTTGCACGGCTCCAGCTCAGCCCATTGAGCCAATAACTGCTGCTC 1325
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                                        CTGGCACTTTCTGCAACCAGGCAAGTTTCCCCTAATCTCCACCCTGAAGAAGGCCCTCG
                                                               CCGGCTTCTCCTGCAACCAGGGCCGATACCCCCTCATCCAGACGCTACGGCAGGAACTGA
                                                                                                      CCAGTGGCAGCGGGAACGGGGGGGGGGGAGTAGCAGCTCTGGAGGCAGCTCGGGAGGCAGTG
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APPLICANT: Tjoelker, Larry W.
TITLE OF INVENTION: CHITIN-BINDING FRAGMENTS
TITLE OF INVENTION: CHITIN-BSE CHITIN-BINDING FRAGMENTS
FILE REFERENCE: 27866/35407
CURRENT ILING DATE: 1999-03-12
EARLIER APPLICATION NUMBER: 09/039,198
EARLIER FILING DATE: 1998-03-12
NUMBER OF SEQ ID NOS: 39
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ch 29.6%; Score 481; DB 4; I
Il Similarity 60.8%; Pred. No. 1.8e-131;
853; Conservative 0; Mismatches 520;
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) LOCATION: (65)..(1399)
US-09-267-574-1
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NAME/KEY: CDS
LOCATION: (2)..(1399)
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ORGANISM: HOMO
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                             Gaps
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                         Indels
 Score 481; DB 4; I
Pred. No. 1.8e-131;
); Mismatches 520;
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29.6%;
60.8%;
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 477.2; DB 2;
Pred. No. 2.4e-130;
); Mismatches 448;
                                                                                       1374 ACTCCTGCAAATGCTGCACCTGG 1396
                                                                     CCAGCTGTGATTGCTGCAACTGG 1528
                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/486,839
FILING DATE: 07 - June - 1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                       New York
United States of America
                                                                                                                                                                     US/08486839
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350 Jericho Turnpike
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Baron, Ronald J.
REGISTRATION NUMBER: 29,281
REFERENCE/DOCKET NUMBER: 29
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (516) 822-3550
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Best Local Similarity 62.7%;
Matches 762; Conservative (
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LENGTH: 1713 base pairs
TYPE: nucleic acid
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                                                                                                                                                                    Sequence 5, Application
Patent No. 5928928
GENERAL INFORMATION:
APPLICANT:
                                                                                                                                                                                                                          TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
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US-08-486-839-5
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US-08-486-839-5
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                                                                              CCATGGTTTCTACTCCTGAGAACCGCCAGACTTTCATCACCTCAGTCAATTCCTGC
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Its Use

Production, Its Use For Decomposing Chitin, Its Us Therapy or Prophylaxis Against Infection Diseases.

#1.30

DIV

294-32

(516) 822-3550

TELEPHONE:

nucleic acid

STRANDEDNESS

unknown

SOFTWARE: Patentin Release #1.0, Version

MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS

America

oţ

New York : United States

COUNTRY: U

ĽΡ

ADDRESSEE: Hoffmann & Baron, I STREET: 6900 Jericho Turnpike

Syosset

STATE:

16

A Human Chitinase, Its Recombinant

INFORMATION:

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CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
CURRENT APPLICATION NUMBER: US/09/151,011
                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/09/15
FILING DATE: 10 - September
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                               NAME: Morriss, Robert C.
REGISTRATION NUMBER: 42,910
REFERENCE/DOCKET NUMBER: 294
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (516) 822-3582
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 1713 base pairs
                                                                                                                                                                            COMPUTER READABLE FORM:
                                                                                  CORRESPONDENCE ADDRESS
                            TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: CDNA
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TACCAAGCTTTCAATGGCCTGAAAATAAGAACAGCCAGCTGAAAACTCTCCTGGCCATT
                                                     GGAGGCTGGAACTTCGGGACTGCCCCTTTCACTGCCATGGTTTCTACTCCTGAGAACCGC
                                                                                                         CAGACTTTCATCACCTCAGTCATCAAATTCCTGCGCCAGTATGAGTTTGACGGGCTGGAC
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                                               Length 1713;
                                                                            Indels
                                           Score 477.2; DB 3;
Pred. No. 2.4e-130;
0; Mismatches 448;
                                           29.48; 62.78;
                                                                            Conservative
                                           Query Match
Best Local Similarity
Matches 762; Conserv
HYPOTHETICAL: NO
            US-09-151-011-5
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RESULT 11 US-00-151-011-5 Sequence 5, Application US/09151011 ; Patent No. 6057142

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ATCCCCCAACTGTCACAGTACCTGGACTACATCCATGTCATGACCTACGACCTCCATGGC 751
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                                                 PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 477.2; DB 4;
Pred. No. 2.4e-130;
; Mismatches 448;
                                                                                  CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/343,623
                                                                                                                                                  US/08/486,839
               IBM PC compatible YSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                NAME: Baron, Ronald J.
REGISTRATION NUMBER: 29,281
REFERENCE/DOCKET NUMBER: 294-26
TELECOMUNICATION INFORMATION:
TELEPHONE: (516) 822-3550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                               FILING DATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/
FILING DATE: 07-JUNE-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29.48;
   Floppy disk
                                                                                                                                                                                                                                                                                TELEFAX: (516) 822-3582
INFORMATION FOR SEQ ID NO: 5
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                LENGTH: 1713 base pairs
TYPE: nucleic acid
STRANDEDNESS: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: unknown MOLECULE TYPE: CDNA HYPOTHETICAL: NO
                                  OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
Matches 762; Conserve
                                                 SOFTWARE:
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TITLE OF INVENTION: production, its use for decomposing chitin, its use
TITLE OF INVENTION: in therapy or prophylaxis against infection diseases.
NUMBER OF SEQUENCES:
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                                                   632 AGGCTGATGGTCACTGCTGCAGTAGCTGCTGGCATCTCCAATATCCAGTCTGGCTATGAG
                                                                                                                                                                692 ATCCCCCAACTGTCACAGTACCTGGACTACATGCCATGACGTACGACCTCCATGGC
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                                GTCCTGGTGCAGGAAATGCGTGAAGCTTTTGAGCAGGAGGCCAAGCAGATCAACAAGCCC
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Patent No. 6303118
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STREET: 350 Jericho Turnpike
CITY: Jericho
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US-09-343-623-5
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                                                                                                                                                                                                                                                                                                                                                Length 1433;
                                                                                                                                                                                                                                                                                                                                            Score 369; DB 1; Length 14
Pred. No. 1.4e-98;
0; Mismatches 445; Indels
                                             REFERENCE/DOCKET NUMBER: ATGS0017
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-270-5219
TELEFAX: 610-270-509
                                34,344
                                                                                                                                                                                                                                                                                                                                                22.7%;
59.8%;
     ATTORNEY/AGENT INFORMATION:
                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 1433 base pairs
LENGTH: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                               1 Similarity 59.8 703; Conservative
                Han, William T
                                 REGISTRATION NUMBER:
                                                                                                                                                                                                                              MOLECULE TYPE: CDNA HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                  ANTI-SENSE: NO
                                                                                                                                                                                                                                                                            ; FRAGMENT TYPE:
; ORIGINAL SOURCE:
US-08-694-915-1
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APPLICANT: Kirkpatrick, Robert
APPLICANT: Rosenberg, Martin
TITLE OF INVENTION: HUMAN CARTILEGE
NUMBER OF SEQUENCES: 7
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/694,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1, Application US/08694915
Patent No. 5811535
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COUNTRY: USA
ZIP: 19406-2799
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
AUTTER: IBM Compatible
COMPUTER: TEM COMPATIBLE
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STREET: 709 Swedeland
CITY: King of Prussia
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PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
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                                                                                                                                                                                 Length 1526;
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                                                                                                                                                                               Score 354.8; DB 1;
Pred. No. 2.2e-94;
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60.2%;
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nucleic acid
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                STRANDEDNESS: 6
TOPOLOGY: line
MOLECULE TYPE: CI
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                                                                                                      FRAGMENT TYPE:
ORIGINAL SOURCE:
US-08-694-915-3
                                                                                         ANTI-SENSE: NO
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GCAACGCCTACCTCAATGTGGATTATGTCATGAACTACTGGAAGGACAATGGAGCACCAG 872
                                 CAAGCTCCTACTACAATGTGGAATATGCTGTGGGGTACTGGATACATAAGGGAATGCCAT
                                                                   CTGAGAAGCTCATCGTTGGATTCCCTACCTATGGACACCAACTTCATCCTGAGCAACCCCT
                                                                                       CAGAGAAGGTGGTCATGGGCATCCCACATATGGCCACTCCTTCACACTGGCCTCTGCAG
                                                                                                                                          933 CCAACACTGGAATTGGTGCCCCCACCTCTGGTGCTGGTCCTGCTGGGCCCTATGCCAAGG
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APPLICANT: Rirkpatrick, Robert
APPLICANT: Rosenberg, Martin
TITLE OF INVENTION: HUMAN CARTILEGE GP39-LIKE GENE
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEE: SmithKline Beecham Corporation
STREET: 709 Swedeland Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1233 TTCCCCTAATCTCCACCTGAAGAAGGCCCTCGGC 1267
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APPLICATION NUMBER: US/08/694,915
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3, Application US/08694915
Patent No. 5811535
GENERAL INFORMATION:
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FastSEQ Version 1.5
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REFERENCE/DOCKET NUMBER: AT
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-270-5219
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NAME: Han, William T
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MEDIUM TYPE: Diskette
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APPLICATION NUMBER:
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                                CCCTGCCTCTGTACCCACCTGATCTACGCCTTTGCTGGGAGGCAGAACAACGAGATCACC
                                                  ACCATCGAATGGAACGATGTGACTCTCTACCAAGCTTTCAATGGCCTGAAAAATAAGAAC
                                                                                                            365 AGCCAGCTGAAAACTCTCCTGGCCATTGGAGGCTGGGAACTTCGGGACTTGCCTTTCACT
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Job time: 83.4127 secs
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                                                                                            GCCATGGTCTGGGCCATTGATCTGGATGACTTCACTGGCACTTTCTGCAACCAGGGCAAG 1231
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                                                                                                                                                                                                                                                                                                      Sequence 4, Application PC/TUS9407754
GENERAL INFORMATION:
APPLICANT: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
ATTILE OF INVENTION: ASSAY FOR YKL-40 AS A MARKER FOR
TITLE OF INVENTION: DEGRADATION OF MAMMALIAN CONNECTIVE TISSUE MATRICES
                GGATGGGATGCCCCTCAGGAAGTGCCTTATGCCTATCAGGGCAATGTGTGGGTTGGCTAT
                                          Gaps
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/WS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 339.8; DB 5;
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; Mismatches 442;
                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: SPENSLEY HORN JUBAS & LUBITZ
STREET: 1880 CENTURY PARK EAST, FIFTH FLOOR
CITY: LOS ANGELES
STATE: CALIFORNIA
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FILING DATE: 08-JUL-1994
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NAME: HOWELLS, STACT L.
REGISTRATION NUMBER: 34,842
REFERENCE/DOCKET NUMBER: FD 3'
TELEPOMMUNICATION INFORMATION:
TELEPHONE: 619/455-5100
TELEPAX: 619/455-5110
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58.9%;
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LENGTH: 1681 base pairs
TYPE: nucleic acid
STRANDEDNESS: Single
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Sequence 20, Appl.
Sequence 17, Appl.
Sequence 19, Appl.
Sequence 11, Appl.
Sequence 16, Appl.
Sequence 10161, A
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Sequence 10161, A
Sequence 1180, A
Sequence 5957, A
Sequence 5957, A
Sequence 6496, A
Sequence 6496, A
Sequence 6403, A
Sequence 10172, A
Sequence 6214, A
Sequence 8214, A
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61 AGAACATATAAAAAGCTCTGCGGGACTGGTGCTGCAACCATGACAAGCTTATTCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2, Application US/10004219B
Publication No. US20030087414A1
GENERAL INFORMATION:
APPLICANT: Macrozyma
APPLICANT: Macrozyma
APPLICANT: Aerts, Johannes M.F.G.
APPLICANT: Boot, Rolf G.
TITLE OF INVENTION: A mammalian mucinase, its recombinant production, and
TITLE OF INVENTION: A mammalian production is applicable of INVENTION: A mammalian production is a lively of prophylaxis against diseases of TITLE OF INVENTION: Which mucus is involved or infection diseases FILE REFERENCE: 2183-5136US
CURRENT APPLICATION NUMBER: US/10/004,219B
CURRENT FILING DATE: 2001-11-02
NUMBER OF SEQ ID NOS: 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
OTHER INFORMATION: Description of Combined DNA/RNA Molecule: human OTHER INFORMATION: AMCase cDNA sequence and deduced amino acid OTHER INFORMATION: sequence
FEATURE:
                                                                                                                              US-09-960-352-10161

US-09-960-352-14460

US-09-960-352-5957

US-09-960-352-12100

US-09-960-352-12100

US-09-960-352-12100

US-09-960-352-10172

US-09-960-352-4053

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                US-10-218-743-20
US-10-218-743-22
US-10-218-743-17
US-10-218-743-19
US-10-218-743-14
US-10-218-743-16
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100.0%; Pred. No. 0;
Live 0; Mismatches
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  Query Match 100.
Best Local Similarity 100.
Matches 1625; Conservative
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; LOCATION: (104)..(1531)
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Sequence 402, App
Sequence 4, Appli
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Sequence 2589, Ap
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Sequence 7364, Ap
Sequence 3072, Ap
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Sequence 3315, Ap
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Sequence 4979, Ap
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Sequence 3, Appli
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Sequence 44, Appl
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8891.723 Million cell updates/sec
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                                                                                                                                  July 3, 2003, 05:03:26 ; Search time 285.278 Seconds
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                  GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
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US-10-202-456A-14
US-10-203-456A-14
US-09-3140-44
US-09-352-830A-402
US-09-360-352-678
US-09-262-213A-8
US-09-360-352-3059
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US-09-960-352-3057
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US-09-960-352-365
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Published_Applications_NA:*
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Maximum Match 100%
Listing first 45 summaries
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Database

Result No.

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DB 9; Length 1625; 0; Indels

1244 TCCACCCTGAAGAAGGCCCTGCAGAGTGCCAAGTTGCACGCTCCAGCTCCTGCCC 1303 1 1 1 1 1 1 1 1 1	RESULT 3 US-10-202-436A-14 Sequence 14, Application US/10202436A Sequence 14, Application WS/10202436A Sequence 14, Application WS/2030049261A1 GENERAL INFORMATION: APPLICANT: ELIAS, JACK A SAPPLICANT: ELIAS, JACK A STELLE OF INVENTION: METHODS COMPOSITIONS AND KITS RELATING TO CHITINASES AND CISTILE OF INVENTION: MOLECULES AND INFLAMMATORY DISEASE TITLE OF INVENTION: MOLECULES AND INFLAMMATORY DISEASE STILE REFERENCE: 044574-5107 CURRENT FILING DATE: 2002-10-17 SURRENT FILING DATE: 2001-07-24 NUMBER OF SEQ ID NOS: 14 SOFTWARE: Patentin version 3.1 SEQ ID NO 14 SEQ ID NO	Query Match 43.6%; Score 708.8; DB 9; Length 1038; Best Local Similarity 93.8%; Pred. No. 6.3e-225; Matches 784; Conservative 0; Mismatches 42; Indels 10; Gaps 4; Qy 769 TGGAGAGAACGCCCCCTCTACAAATACCGACTGACGCGACGCAACGCCTACCTCAA 60 BB 1 TGGAGAAACAGCCCCTCTACAAATACCGACTGACACGCGAACGCCTACCTCAA 60 Qy 829 TGTGGATAATGTCATGAACTACTGGAAGACAATGGAGCACCAGCTGAGAAGCTCATCGT 120 BB BB Qy 889 TGGATTCCTACCTACTACTACTACTACTCATCATCACCAGCTGAGAACTCGTACTCTCTCACCTCACACTCGAATTGG 180 BB TGGATTCCTACCTACTATGGACAATCATCATCATCACACCTCCAACACTGGAATTGG 180 Qy 889 TGGATTCCTACCTATGGACAACTTCATCATCGACACCCTCCAACACTGGAATTGG 180 BB TGGATTCCTACTATGGACAACTTCATCATGGCAACCCTCCAACACTGGAATTGG 180 Qy 899 TGGATTCCTTACTGGACCAACTTCATGGCAACACTTGGAATTGG 1008 BB 111111111111111111111111111111111111
164 GCCTACCAGCTGACATGCTACCAACTGGGCCCAGTACCGGCCCAGGCCTGGGGCGC 223	464 ACCTCAGTCATCAAATTCCTGCGCCAGTATGACGGGCTGGACTTTGACGGGG 523	824 CTCAATGTGGATTATGTCATGAACTACGAAGGACAATGGAGCACCAGCTGAGAAGCTC [1] [1] [1] [1] [1] [1] [1] [1] [1] [1]

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                                                                                                                                      Score 349.4; DB 9;
Pred. No. 3.7e-105;
); Mismatches 436;
VOS: 363
for Windows Version
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                                                                                                                                       21.5%;
59.5%;
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                                                                                  ; ORGANISM: Homo sapiens
US-10-097-340-44
NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
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 CGATATTAAGGCTCAATGGCTTAAGCACACAAATTTGGAGGCGCCATGGTCTGGGCCAT
                 TGATCTGGATGACTTCACTGGCACTTTCTGCAACCAGGGCAAGTTTCCCCCTAATCTCCAC
                                                                                     CCTGAAGAAGGCCCTCGGCCTGCAGAGTGCAAGTTGCACGGCTCCAGCTCAGCCCATTGA
                                                                                                                                                      CAGCTCGGGAGGCAGTGGATTCT--GTGCTGTCAGAGCGAACGGCCTCTACCCCGTGGCA
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APPLICANT: Xumei ZHAO
APPLICANT: Xumei ZHAO
APPLICANT: Xumei ZHAO
TITLE OF INVENTION: Nucleic Acid Molecules and P
TITLE OF INVENTION: Assessment, Prevention, and
TITLE OF INVENTION: Assessment, Prevention, and
TITLE OF INVENTION: Assessment, Prevention, and
CURRENT ELLING DATE: 2002-03-14
PRIOR PILICATION NUMBER: 60/276,025
PRIOR PELICATION NUMBER: 60/325,149
PRIOR APPLICATION NUMBER: 60/325,149
PRIOR PELICATION NUMBER: 60/324,967
PRIOR FILING DATE: 2001-03-14
PRIOR PELICATION NUMBER: 60/324,967
PRIOR PELICATION NUMBER: 60/311,732
PRIOR PELICATION NUMBER: 60/313,580
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Publication No. US20030087250A1
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APPLICANT: MADJULA GANNAVARAPU
APPLICANT: Sebastian HORRSCH
APPLICANT: Shubhang1 KAMATKAR
APPLICANT: Steve G. KOVARS
APPLICANT: Rachel E. MEYERS
APPLICANT: MICHAEL MORRISET
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Robert C. BAST, .
Karen LU
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qq	 1027 GACTTCCTCCGCGGGGGCCACGAGTCCATAGAACCCTCGGCCAGGGCGCCCTATGCC 1083		
oy Ob	1085 TATCAGGGCAATGTGTGGCTATGACAACATCAAGAGCTTCGATATTAAGGCTCAA 1144 	oy da	486 GCCAGTATGACTTTGACGGGTGGACTTTGACTGGGTACCCTGGGTCTCGTGGGAGCC 545 1 1 1 1 1 1 1 1 1
Qy	1145 TGCTTAAGCACAACAAATTGGAGGCGCCATGGTCTGGGCCATTGATCTGGATGACTTC 1204 	ζς d	546 CTCCTCAGGACAACCATCTTCACTGTCCTGGAGAATGCGTGAAGCTTTTGAGC 605
Qy	1205 ACTGGCACTTTCTGCAACCAGGGCAAGTTCCCCTAATCTCCACCCTGAAGAAG 1259 	δy B	606 AGGAGGCCAAGCAGATCAACAGCCCAGGCTGATGGTCACTGCAGTAGCTGCTGGCA 665
RESULT 5 US-09-82	RESULT 5 US-09-812-830A-402	δς qq	666 TCTCCAATATCCAGTCTGGGTATGAGATCCCCCAACTGTCACAGTACCTGGACTACATCC 725
Batent No. 1; GENERAL INFO	S SS S	QQ Dp	726 AIGTCATGACCTACGACTCCTGGGAGGGCTACACTGGAGAACA 779
APPLICANT APPLICANT APPLICANT		oy da	780 GCCCCTCTACAATACCCGACTGACGCGGCAACGCCTACCTCAATGTGGATTATG 839
APPLICANT APPLICANT APPLICANT APPLICANT	Resnick, Gulukota Graham,	δς qq	840 TCATGAACTACTGGAAGACAATGGAGCACCAGCTGAGAAGCTCATCGTTGGATTCCCTA 899
FILE	TILLE OF INVENTION: FOLINGLECTILES ENCOLING NOVEL SECRETED FROTEINS CURRENT APPLICATION NUMBER: US/09/822,830A CURRENT FILING DATE: 2001-03-29	λ O	900 CCTATGGACACAACTICATCCTGAGCACCCTCCAACACTGGAATTGGTGCCCCCACCT 959
PRIOR PRIOR NUMBER SOFIW	FALLOR AFFLICATION NOMBER: 00/195,604 NUMBER OF SEQ ID NOS: 631 SOFTWARE: Patentin Ver. 2.0	yo da	960 CIGGIGCIGGICCIGCIGGGCCCTAIGCCAAGAGICIGGGATCIGGGCITACIACAGA 1019
LENGTH: TYPE: DN ORGANISM	LENGTH: 1391 TYPE: DNA TYPE: DNA PROGNIESM: Homo sapiens	do Db	1020 TCTGTACCTTCCTGAAAAATGGAGCCACTCAGGATGGGATGCCCCTCAGGAAGTGCCTT 1079
NAME, COCA, OTHEI	FEATURE: misc_feature LOCATION: 1353_ O'THER INFORMATION: n=a,c,g, or t	oy Od	1080 AIGCCTAICAGGCAAIGTGGGTTGGCTATGACAACAICAAGAGCTTCGATAITAAGG 1139
Query Match Best Local Matches 68	Match 21.4%; Score 348.4; DB 10; Length 1391; ocal Similarity 59.2%; Pred. No. 6.6e-105; s 680; Conservative 0; Mismatches 441; Indels 27; Gaps 4;	oy Op	1140 CTCAATGGCTTAAGCACAACAATTTGGAGGGGCGCCATGGTCTGGGCCATTGATCTGGATG 1199 111
Oy Db	GGTCTTGTCCTTATACTGAATTTGCAGCTCGGCTCTGCCTACCAGCTGACATC 	Qy	1200 ACTTCACTGGCACTTTCTGCAACCAGGGCAAGTTCCCCTAATCTCCACCCTGAAGAGG 1259
Oy Op	186 TCACCAACTGGGCCCAGTACCGGCCAGGCCTGGGGCGCTTCATGCCTGACAACATCGACC 245	v qq	1260 cccrcdcc 1267 1154 Gccrrdcc 1161
Qy	246 CCTGCCTCTGTACCCACCTGATCTACGCCTTTGCTGGAGGCAGAACAACGAGATCACCA 305	RESULT US-09-9	RESULT 6 US-09-960-352-678 ; Sequence 678, Application US/09960352
Qy.	306 CCATCGAATGGAACGATGTGACTCTTCAAGCTTTCAATGGCCTGAAAATAAGAACA 365 	; Pater; GENER; APPI	Patent No. USZUUZU137139A1 GENERAL II. APPLICANT: Warren, Wesley C. APPLICANT: Tao, Nengbing
Oy Dp	366 GCCAGCTGAAAACTCTCCTGGCCATTGGAGGCTGGAACTTCGGGACTGCCCTTTCACTG 425 1 1 1 1 1 1 1 1 1	APPI APPI ; TITI ;	AFFLICANT: BYBAL, JOHN C. APPLICANT: Mathialgan, Nagappan APPLICANT: MATHIALAGAN, NAGALBAND OTHER MOLECULES ASSOCIATED WITH LACTATION ANI TITLE OF INVENTION: MUSCLE AND FAT DEPOSITION
δλ	426 CCATGGTTTCTACTCCTGAGAACCGCCAGACTTTCATCACCTCAGTCATCAAATTCCTGC 485	CURF	REFERENCE: 16511.006/37-21(10298)C ENT APPLICATION NUMBER: US/09/960,352

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                                                Gaps
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                  Length 1681;
                                                Indels
                  DB 10;
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                Score 338.2;
Pred. No. 1.8e
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                20.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 4. Application US/09215077A.

Sequence 4. Application US/09215077A.

Patent No. US20020031793A1

GENERAL INFORMATION:

APPLICANT: PRICE, PAUL A.

APPLICANT: DOHANSEN, JULIA S.

TITLE OF INVENTION: ASSAY FOR YKL-40 AS A MARKER FOR DEGRADATION OF TITLE OF INVENTION: MAMMALIAN CONNECTIVE TISSUE MATRICES

TITLE OF INVENTION: MAMMALIAN CONNECTIVE TISSUE MATRICES

TITLE OF INVENTION: MAMMALIAN CONNECTIVE TISSUE MATRICES

CURRENT FILING DATE: 1996-12-18

PRIOR APPLICATION NUMBER: 08/291,527

PRIOR APPLICATION NUMBER: 08/299,989

PRIOR FILING DATE: 1996-4-17

PRIOR FILING DATE: 1993-07-09

NUMBER OF SEQ ID NOS: 4

SOFTWARE: PATENTIN VOI. 2

SEQ ID NOS: 4

SEQ ID NO 4.
                                                                                                                                                                              ;
0
                                                                                                                                              Length 449;
                                                                                                                                                                              Indels
                                                              ; TYPE: DNA
; ORGANISM: Bos taurus
; OTHER INFORMATION: Clone ID: 03-LIB34-081-Q1-E1-A11
US-09-960-352-678
                                                                                                                                           Score 342; DB 10;.
Pred. No. 4.6e-103;
                                                                                                                                                                            0; Mismatches
2001-09-24
15112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                           Query Match 21.0%;
Best Local Similarity 87.2%;
Matches 375; Conservative
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CURRENT FILING DATE:
NUMBER OF SEQ ID NOS:
SEQ ID NO 678
LENGTH: 449
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APPLICANT: Vasanthakamur, Geetha
APPLICANT: Vasanthakamur, Geetha
APPLICANT: Ostson, Stanton
APPLICANT: Ma, Xiao-Jun
TITLE OF INVENTION: Ostsoarthritis tissue-derived nucleic acids, polypeptides,
TITLE OF INVENTION: vectors, and cells
TITLE OF INVENTION: vectors, and cells
TITLE OF INVENTION: Vectors, and cells
CURRENT APPLICATION NUMBER: US/09/765,231A
CURRENT FILING DATE: 2001-01-18
SEQ ID NO 8
LENGTH: 1474
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                               665 ATCTCCAATATCCAGTCTGGCTATGAGATCCCCCAACTGTCACAGTACCTGGACTACATC
                                               725 CATGTCATGACCTACGACCTCCATGGCTCCTGGGAGGGCTACACTGGAGAAACAGCCCC
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Pred. No. 1.6e-82;
0; Mismatches 423;
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; Patent No. US20020119452A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Searle/Monsanto
APPLICANT: Phippard, Deborah
APPLICANT: Vasanthakamur, Geetha
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Llarity 59.4%;
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667; Conserv
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US-09-765-231A-8
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Best Local S:
Matches 667
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                                                               1205 ACTGGCACTTTCTGCAACCAGGGCAAGTTTCCCCTAATCTCCACCCTGAAGAAGG 1259
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                                                                                                                                                                      Sequence 4. Application US/09262213A
Sequence 4. Application US/09262213A
Patent No. US20020090658A1
GENERAL INPORMATION:
APPLICANT: PRICE, PAUL
APPLICANT: PRICE, PAUL
TITLE OF INVENTION: ASSAY FOR YKL-40 AS A MARKER FOR DEGRADATION OF TITLE OF INVENTION: MAMMALIAN CONECTIVE TISSUE MATRICES
FILE REFERENCE: 4077-8954120S
CURRENT APPLICATION NUMBER: US/09/262,213A
CURRENT FILING DATE: 1999-03-04
PRIOR FILING DATE: 1993-07-09
PRIOR FILING DATE: 1994-07-08
PRIOR FILING DATE: 1996-04-17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 338.2; DB 10;
Pred. No. 1.8e-101;
); Mismatches 443;
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SOFTWARE: PatentIn version 3.0
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Best Local Similarity 58.9%;
Matches 668; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 1681
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US-09-262-213A-4
                                                                                                                                                             US-09-262-213A-4
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Matches 224; Conservative
                       Sequence 2589, Application Patent No. US20020137139A1
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                                               GENERAL INFORMATION:
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                                                                                                                                             AGCCTGGAACTTCGGGACTGCCCCTTTCACTGCCATGGTTTCTACTCCTGAGAACCGCCA 453
                      276 T-TGCTGGGAGGCAGAACAACGAGATCACCACCATGGAATGGAACGATGTGACTCTCTAC
                                                          CAAGCTTTCAA-TGGCCTGAAAATAAGAACAGCCAGCTGAAAACTCTCCTGGCCATTGG
                                                                                                            GACTTTCATCACCTCAGTCATCAAATTCCTGCGCCAGTATGAGTTTGACGGGCTGGACTT
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APPLICANT: Warren, Wesley C.
APPLICANT: Tao, Nengbing
APPLICANT: Tao, Nengbing
APPLICANT: Tao, Nengbing
APPLICANT: Tao, Nengbing
APPLICANT: Mathialagan, Nagappan
TITLE OF INVENTION: NUCLEIC ACID AND OTHER MOLECULES ASSOCIATED WITH LACTATION AND
TITLE OF INVENTION: MUSCLE AND FAT DEPOSITION
FILE REPERENCE: 16511.006/37-21(10298)
CURRENT APPLICATION NUMBER: US/09/960,352
CURRENT APPLICATION NUMBER: US/09/960,352
SEQ ID NOS: 15112
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Sequence 13050, Application US/09960352
Sequence 13050, Application US/09960352
Sequence 13050, Application US/0960352
Sequence 13050, Application US/09960352
APPLICANT: Tao, Wesley C.
APPLICANT: Byatt, John C.
APPLICANT: Mathialagan, Nagapan
APPLICANT: Mathialagan, Nagapan
TITLE OF INVENTION: NUCLEIC ACID AND OTHER MOLECULES ASSOCIATED WITH LACTATION AND TITLE OF INVENTION: MUSCLE AND FAT DEPOSITION
FILE REFERENCE: 16511.006/37-21(10299)C
CURRENT APPLICATION NUMBER: US/09/960,352
CURRENT FILING DATE: 2001-09-24
NUMBER OF SEQ ID NOS: 13112
SEQ ID NO 13050
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                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Bos taurus
OTHER INFORMATION: Clone ID: 12-LIB188-006-Q1-E1-C7
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Pred. No. 1.2e-35;
0; Mismatches 141;
us/09960352
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     191 CTATCTGTTGGAGGATGGAACTTCGGTTCTCAAAGATTTTCCAAGATAGCTTCCAAGACT 250
                                       443 GAGAACCGCCAGACTTTCATCACCTCAGTCATCAAATTCCTGCGCCAGTATGAGTTTGAC 502
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Pred. No. 2.9e-34;
0; Mismatches 133; Indels
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, ORGANISM: Bos taurus
; OTHER INPORMATION: Clone ID: 32-LIB188-023-Q1-E1-H11
US-09-960-352-7364
                                                                                                                                            311 GGACTGGACCTAGCATGCTCTACCCCGGGTGGAG----
                                                                                                                                                                                                                                                                                                  Sequence 7364, Application US/09960352
Patent No. US20020137139A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Warren, Wesley C.
APPLICANT: Tao, Nengbing
APPLICANT: Byatt, John C.
APPLICANT: Mathialagan, Nagappan
TITLE OF INVENTION: NUCLEIC ACID AND OTHER MOLECUI
TITLE OF INVENTION: NUBSER: US/09/960,352
CORRENT APPLICATION NUBBER: US/09/960,352
CURRENT FILING DATE: 2001-09-24
NUMBER OF SEQ ID NOS: 15112
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; Patent No. US/20020137139A1
; GENERAL INFORMATION:
; APPLICANT: Warren, Wesley C.
; APPLICANT: Tao, Nengbing
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Best Local S
Matches 215
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APPLICANT: Tack, Nengbirg C.
APPLICANT: Mathialagan, Nagapan
TITLE OF INVENTION: NUCLEIC ACID AND OTHER MOLECULES ASSOCIATED WITH LACTATION AND
TITLE OF INVENTION: MUSCLE AND FAT DEPOSITION
FILE REFERENCE: 16511.006/37-21(10298)C
CURRENT APPLICATION NUMBER: US/09/960,352
CURRENT FILING DATE: 2001-09-24
NUMBER OF SEQ ID NOS: 15112
SEQ ID NO 3072
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                                                                          DB 10; Length 414;
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ORGANISM: BOS taurus
OTHER INFORMATION: Clone ID: 56-LIB188-019-Q1-E1-F8
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; OTHER INFORMATION: Clone ID: 14-LIB188-015-Q1-E1-D5
US-09-960-352-3072
                                                                       Score 136.8; DB 10;
Pred. No. 8.6e-35;
0; Mismatches 132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 136; DB 10;
Pred. No. 1.6e-34;
0; Mismatches 150;
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                                                                       Query Match

Best Local Similarity 62.1%;
Matches 216; Conservative C
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APPLICANT: Warren, Wesley C.
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US-09-960-352-3072
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APPLICANT: Warren, Wesley C.
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APPLICANT: Tao, Nongbing
APPLICANT: Mathialagan, Nagappan
APPLICANT: Mathialagan, Nagappan
TITLE OF INVENTION: WIGCLE AND OTHER MOLECULES ASSOCIATED WITH LACTATION AND
FILE REFERENCE: 16511.006/37-21(10298)C
CURRENT APPLICATION NUMBER: US/09/960,352
CURRENT FILING DATE: 2001-09-24
SEQ ID NOS: 15112
SEQ ID NO 14919
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; NAME/KEY: unsure
; LOCATION: (4)
; OTHER INFORMATION: Unsure at all n locations
; OTHER INFORMATION: Clone ID: 64-LIB188-023-Q1-E1-H12
US-09-960-352-14919
                                                                                                                                                                                                                                         ID: 14-LIB188-002-Q1-E1-D5
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Pred. No. 3e-34;
0; Mismatches 133;
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Pred. No. 7.2e-30;
0; Mismatches 120;
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61.8%;
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Similarity 61.8%;
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Best Local Similarity 61.8
Matches 215; Conservative
                                                                                                                                                                                                              TYPE: DNA
OTHER INFORMATION: Clone
US-09-960-352-3057
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ORGANISM: Bos taurus
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AGENCOURT
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HTC; CAP trapper. HTC; CAP trapper. clone.lib:RIKEN full-length enriched mouse cDNA library clone:2200003E03.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostoml;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
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10499374
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                    BQ231098 BQ231098 BQ231064 BGB6731054 BGB731136 BGB73136 BGB6775 BGB66775 BGB66775 BGB66773 BGB73137 BGB73137 BGB73137 BGB7314 BGB7314
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
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AUTHORS
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                    GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCTAPDVPSEPVTTPPGSGSGGGSSGGSGGSGFCADKADGLYPVADDRNAFWQCING
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     191 GCTGGGATGCAGAACAATGAGATCACCACATAGAATGGAATGATGTTACTCTCTATAAA 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            578 GIGCAGGAAAIGCGIGAAGCTITITGAGCAGGAGGCCAAGCAGAICAACAAGCCCAGGCTG 637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     131 GGGAGCTTCAAGCCTGATGACATTAACCCCTGCGTGTACTCACCTGATCTATGCCTTT
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putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCTCTGCCTACCAGCTGACATGCTACTTCACCAACTGGGCCCCAGTACCGGCCAGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    71 GGGTCTGCCTACAATCTGATATGCTATTTCACCAACTGGGCCCAGTATCGGCCAGGTCTG
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                                                                                                                 /db_xref="FANTOM_DB:2200003E03"
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                    Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamananco, R., Matsunato, H., Sakayuchi, S., Itogani, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. RIKEN integrated sequence analysis (RISA) system--384-format Genome Res. 10 (11), 1757-1771 (2000)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of
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yo g	698 CAACTGTCACAGTACCTGGACTACCATGTCATGACCTACGACCTCCATGGCTCCTGG 757	ORGANISM	Mus musculus Eukaryota; Me: Mammalla; Eut)
	GAGGCTACACTGGAGAGAGACCCCCTCTACAAATACCCGACTGACACCGGCAGCAAC	AUTHORS TITLE JOURNAL	Carninci,P. al High-efficien Meth. Enzymol
q ^o	671 GAGGGCTACACTGGGGAGAATAGTCCTCTTTACAAATACCCTACTGAGACTGGTAGCAAT 730 818 GCCTACCTCAATGTGGATTATGTCATGAACTACTGGAAGACAATGGAGGACCAGCTGAG 877	MEDLINE PUBMED REFERENCE	99279253 10349636 2
		AUTHORS	Carninci, P., i
ç d	878 AAGCICAICGIIGGAIICCCIACCIACGAACACAACIICCAGCGGAAGCGCCCCCAAC 937 	JOURNAL MEDLINE	prepare full- Genome Res. 1 20499374
oy Dp	938 ACTGGAATTGGTGCCCCCACCTCTGGTGCTGGTGGCCCTATGCCAAGGAGTCT 997 	PUBMED REFERENCE AUTHORS	11042159 3 Shibata,K., I Konno,H., Aki
٠	GGGATCTGGGCTTACTACGAGATCTGTACCTTCCTGAAAAATGGAGCCACTCAGGGATGG		Sumi, N., Ishi Yamamoto, R., Fujiwake, S.,
•			Yoneda,Y., Is Okazaki,Y., M
r qa	.030 GATGCCCCTCAGGAAGTGCCTATGCCTATGAGGCAATGTGGGGTTGGCTATGACAAC 111/ 	JOURNAL	sequencing pigenome Res. 1
Oy 1	1118 ATCAAGAGCTTCGATATTAAGGCTCAATGGCTTAAGCACAAAAATTTGGAGGCGCCATG 1177 	MEDLINE PUBMED REFERENCE AUTHORS	20530913 11076861 4 Kawai,J., Shi
Oy 1	1178 GTCTGGGCCATTGATCTGGATGACTTCACTGGCAACCAGGGCAAGTTTCCC 1237 		Arakawa,T., H. Aizawa,K., Iz. Saito,T., Oka. Kadota,K., Ma
Oy 1 Db 1			Fleischmann, W Kuehl, P., Lew Quackenbush, J Wagner, L., Wa
Qy 1	1298 CAGCCCATTGAGCCAATAACTGCTGCTGCAGCGGGAACGGGAGCGGGAGTAGC 1357		Baldarelli, R. Carninci, P., Fletcher, C., Hofmann, M., H
Qy 1	TTCTGT 		Marchionni, L. Ring, B., Ring Sato, K., Schol
Oy 1	CCCGTGGCAAATAACAGAAATGCCTTCTGGCACTGCGTGAATGGAGTACCAGCAG	6 E	Wynshaw-Boris and Hayashiza
Db 1	1322 CCTGTGGCAGATGACAGAAATGCTTTTTGGCAGTGCAATCAAT	JITLE JOURNAL MEDLINE	Nature 409 (6
Oy 1 Db 1	1478 AACTGCCAGGCCCTTGTCTTCGACACCAGCTGTGATTGCTGCAACTGGGCATAAACC 1537 	PUBMED REFERENCE AUTHORS	11217851 5 (bases 1 to Adachi, J., Air
Oy 1	1538 TGA 1540		Arakawa, T., B Carninci, P., Hara A Haya
Db 1	1442 TAN 1444		Hume, D., Imot Kato, H., Kawa Kuribara
RESULT 2 AK008757 LOCUS DEFINITION	AKO08757 1535 bp mRNA linear HTC 19-JAN-2002 HANS musculus adult male stomach CDNA, RIKEN [11] ingeth enriched		Numazaki, R., Saito, H., Sai Schriml, L., Si Sogabe, Y., Su

AK008757 1535 bp mRNA linear HTC 19-JAN-2002 Mus musculus adult male stomach cDNA, RIKEN full-length enriched library, clone:2210020N23:chitinase, acidic, full insert sequence.

Shinagawa, A., Shibata, K., Yoshino, M., Itoh, M., Ishil, Y.,
T., Hara, A., Fukunishi, Y., Konno, H., Adachi, J., Fukuda, S.,
Izawa, M., Nishi, K., Kiyosawa, H., Kondo, S., Yamanaka, I.,
Okazaki, Y., Gojobori, T., Bono, H., Kasukawa, T., Saito, R.,
Matsuda, H., Ashburner, M., Batalov, S., Casavant, T.,
Matsuda, H., Ashburner, M., Batalov, S., Casavant, T.,
Lewis, S., Matsuo, Y., Nikaido, I., Fosole, G.,
Ush, J., Schrimi, L.M., Staubli, F., Suzuki, R., Tomita, M.,
Washio, T., Sakai, K., Okido, T., Furuno, M., Aono, H.,
P., de Bonaldo, M.F., Brownstein, M.J., Bult, C.,
P., Gariboldi, M. Gustinoich, S., Hill, D.,
C., Fulita, M., Gariboldi, M., Gustinoich, S., Hill, D.,
M., Hume, D.A., Kamiya, M., Lee, N. H., Lyons, P.,
Ringwald, M., Rodriguez, I., Sakamoto, N., Sasaki, H.,
Schonbach, C., Seya, T., Shibata, Y., Storch, K.F., Suzuki, H.,
K., Wang, K. H., Weitz, C., Whittaker, C., Wilming, L.,
Bhris, A., Yoshida, K., Hasegawa, Y., Kawaji, H., Kohtsuki, S. Adachi, J., Alzawa, K., Akahira, S., Akimura, T., Aono, H., Arai, A., Arakawa, T., Baldarelli, R., Bono, H., Brownstein, M., Bult, C., Carninci, P., Fukuda, S., Fukuduishi, Y., Furuno, M., Hanagaki, T., Hara, A., Hayatsu, N., Hill, D., Hiramoto, K., Hiracka, T., Hori, F., Kadi, Y., Kojima, Y., Koho, M., Kasukawa, T., Kojima, Y., Kono, H., Koda, M., Kasukawa, T., Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Quackenbush, J., Saito, H., Saito, R., Sakai, K., Shibata, Y., Shinagawa, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagawa, A., Takahashi, F., Tanaka, T., Tejima, Y., Toya, T., Yamamura, T., Yamanaka, I., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., nno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. an and subtraction of cap-trapper-selected cDNAs to-length cDNA ilbraries for rapid discovery of new genes 10 (10), 1617-1630 (2000) Itoh, M., Alzawa, K., Nagaoka, S., Sasaki, N., Carninci, P., kiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., hii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Indew, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. ated sequence analysis (RISA) system--384-format pipeline with 384 multicapillary sequencer Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Mus. (strain:C57BL/6J) adult male stomach cDNA to mRNA, KEN full-length enriched mouse cDNA library nnotation of a full-length mouse cDNA collection 6821), 685-690 (2001) and Hayashizaki,Y. ncy full-length cDNA cloning 1. 303, 19-44 (1999) 31:12843148 to 1535) etazoa; theria;

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998 GGGATCTGGGCTTACTACGAGATCTGTACCTTCCTGAAAAATGGAGCCACTCAGGGATGG 1057
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                                                                                                                                                                                                                    Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. First strand cDNA was primed with a primer [5, GAGAGAGAGAAGGATCCAAGAGCTTTTTTTTTTTTTTVN 3], cDNA was prepared by using trehalose thermo-activated reverse transcriptase and subsequently enriched for full-length by cap-trapper. cDNA went through one round of normalization to Rot = 5.0 and subtraction to Rot = 20.0. Second strand cDNA was prepared with the primer adapter
             Hayashizaki,Y.

Direct Submission
Submission
Submission
Physical and Chemical Research (RIKEN), Laboratory for Genome
Exploration Research Group, RIKEN Gemonic Sciences Center (GSC),
RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama,
Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp,
URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222,
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NGIGAPTSGDGPAGPYTRQAGFWAYYEICTFLRSGATEVWDASQ"
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data source:MGD, source key:MGI:1932052, evidence:ISS
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Yoshida, K., Yoshino, M.,
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S Adachi.J., Alzawa.K., Bono,H., Brownstein,M., Bult.C.,
Arakawa.T., Baldarelli,R., Bono,H., Brownstein,M., Bult.C.,
Carninci,P., Fukuda,S., Fukunishi,Y., Furuno,M., Hanagaki,T.,
Hara,A., Hayatsu,N., Hill,D., Hiramoto,R., Hiraoka,T., Horl.F.,
Hume,D., Imotani,K., Ishii,Y., Itch,M., Izawa,M., Koya,S.,
Kurihara,C., Matsuyama,T., Miyazaki,A., Nishik,K., Nomura,K.,
Numazaki,R., Ohno,M., Okazaki,Y., Okido,T., Owac,C., Quackenbush,J.,
Saito,H., Saito,R., Sakai,C., Sakai,C., Sano,H., Sano,H., Salto,H.,
Sogabe,Y., Suzuki,H., Tagami,M., Tagawa,A., Takahashi,F.,
Tanaka,T., Tejima,Y., Toya,T., Yamamaka,I.,
Yasunishi,A., Yoshida,K., Yoshino,M., Muramatsu,M. and
Ring, B., Ringwald, M., Rodriguez, I., Sakamoto, N., Sasaki, H., Sato, K., Schonbach, C., Seya, T., Shbata, Y., Storch, K. F., Suzuki, H., Toyo-oka, K., Wang, K. H., Weitz, C., Whittaker, C., Wilming, L., Wynshaw-Boris, A., Yoshida, K., Hasegawa, Y., Kawaji, H., Kohtsuki, S. and Hayashizaki, Y. Functional annotation of a full-length mouse cDNA collection Nature 409 (6821), 685-690 (2001)
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/dev_stage="adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemonic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, MRL.http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222, Pax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   data source:MGD; source key:MGI:1932052, evidence:ISS"
/db_xref="MGD:MGI:1932052"
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0; Mismatches 231; Indels
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/strain="C57BL/6J"
/db_xref="FANTOM_DB:220008L17"
/db_xref="MGD:MGI:1894268"
/db_xref="taxon:10090"
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/note="chitinase, acidic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AKOO8650 1534 bp mRNA linear HTC 19-JAN-2002 Mus musculus adult male stomach cDNA, RIKEN full-length enriched library, clone:2200008L17:chitinase, acidic, full insert sequence. AKO08650
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                                                                                                                                                                                       1262 AGCTCCGGAGGAAGCTCTGGAGCAGTGGATTCTGTGCCGACAAAGCAGATGGCCTCTAC 1321
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
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High-efficiency full-length cDNA cloning
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iai,T., Tashiro,H., Itoh,M.,
i.M., Nishine,T., Harada,A.,
i.Y., Regami,T., Kashiwagi,K.,
i.A., Ohara,E., Watahiki,M.,
ika,T., Matsuura,S., Kawai,J.,
ira,A. and Hayashizaki,Y.
iSA) system-384 format ishino,M., Itoh,M., Ishii,Y.,
no,H., Adachi,J., Fukuda,S.,
'a.H., Kondo,S., Yamanaka,I.,
o,H., Kasukawa,T., Saito,R.,
atalov,S., Casavant,T.,
C., King,B., Kochiwa,H.,
'I., Pesole,G.,
F., Suzuki,R., Tomita,M.,
T., Furuno,M., Aono,H.,
felli,D., Bojunga,N., AGGTTGCACCTCCTGACGTG 1211 CAAAGCAGATGGCCTCTACCCT 1322 CTGCAACTGGCCATGAACCTAA 1442 linear HTC 19-JAN-2002 NA, RIKEN full-length nase, acidic, full insert ahara,Y., Shibata,K., 'M. and Hayashizaki,Y. pper-selected cDNAs to apid discovery of new genes CAGAGGCAACGGCCTCTACCCC 1420 FGGAGTCACGTACCAGCAGAAC 1480 CTGCAACTGGGCATAAACCTGA 1540 Vertebrata; Euteleostomi; hi; Muridae; Murinae; Mus. d male pancreas cDNA to

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                                                        GGAACGATGGCCAAGCTACTTCTCGTCACAGGTCTGGCTCTTCTGCTGAATGCTCAGCTG
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/clone_lib="RIKEN full-length enriched mouse cDNA library"
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Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of
Submitted (10-JUL-2000) Hesearch (RIKEN), Laboratory for Genome
Exploration Research Group, RIKEN Gemomic Sciences Center (GSC),
RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama,
Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp,
URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cleaved with XhoI and SstI. Cloning sites, 5' end: XhoI; 3' SstI. Host: SOLR.
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/db_xref="MGD:MGI:1932052"
1 384 c 370 g 399 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Please visit our web site (http://genome.gsc.riken.go.jp/) for further details.
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                                                                                                                                                    Functional annotation of a full-length mouse cDNA collection
Nature 409 (6821), 685-690 (2001)
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/db_xref="taxon:10090"
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/strain="C57BL/6J"
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Note: this is a NIH_MGC Library.
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Pred. No. 5.3e-204;
0; Mismatches 45;
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                                                                                                                                                    CAGCCCATTGAGCCAATAACTGCTGCTCCCAGTGGCAGCGGGAACGGGAGCGGGAGTAGC 1357
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                                                                                                                                                                                                                                                                                                                                            CCTGTGGCAGATGACAGAATGCTTTTTGGCAGTGCATCAATGGAATCACATACCAGCAG 1376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BI760250 | 957 bp mRNA linear EST 25-SEP-2001
603045190F1 NIH_MGC_116 Homo sapiens CDNA clone IMAGE:5185486 5',
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National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)

Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rémail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.jgov
Plate: LLAM11463 | row: c column: 23
High quality sequence stop: 780.
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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 95)
                       ATCIGGGCCATIGACCTIGATGACTICACTGGCTCTTTCTGTGATCAGGGAAAATTTCCT
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B1760250
B1760250.1 G1:15751828
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TITLE
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (Dases 1 to 1038)

1 (Dases 1 to 1038)

1 National Institutes of Health, Mammalian Gene Collection (MGC)

1 (Mpublished (1999)

1 (Mpublished (1999)

1 (Mpublished (1999)

2 (Mpublished (1999)

3 (Mpublished (1999)

4 (Mpublished (1999)

5 (Mpublished (1999)

5 (Mpublished (1999)

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9 (Mpublished (1990)

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9 (Mpublished (1990)

1 (Mpubl
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1064 CCTCAGGAAGTGCCTTATGCCTATCAGGGCAATGTGTGGGGTTGGCTATGACAACATCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1124 AGCTTCGATATTAAGGCTCAATGGCTTAAGCACAACAATTTGGAGGCGCCATGGTCTGG
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                                                                                                                                                                                               481 ATTGGTGCCCCCACCTCTGGTGCTGGTCCTGCTGGGCCCCTATGCCAAGGAGTCTGGGATC
                                                                                                                                                                                                                                                                      1004 TGGGCTTACTACGAGATCTGTACCTTCCTGAAAAATGGAGCCACTCAGGGATGGGATGCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA sequence.
BI517797
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pCWV-SPORT6; Site_1: NotI; Site_2: ECCRV (destroyed); RNA
source anonymous pool of 3 colons, age 26 yo male, 49 yo
female, 71 yo male colon; 46 yo male kidney, and pool of 2
stomachs, 62 yo male and 70 yo female. Library is
oligo-dT primed and directionally cloned (ECCRV site is
destroyed upon cloning). Average insert size 1.4 kb,
insert size range 1.3 kb. Library is normalized and
enriched for full-length clones and was constructed by C.
Gruber (Invitrogen). Research Genetics tracking code
023. Note: this is a NIH,MGC Library."
                                                                               BM923480 1105 bp mRNA linear EST 12-MAR-2002
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I (base: Lo.1105).

NIH-MGC http://mgc.ncl.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999).

Email: cgapbs-rémail.nih.gov

Tissue Procurement: Life Technologies, Inc.

CONA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC. Clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://lange.llnl.gov

Righ quality sequence stop: 668.
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Catarrhini; Hominidae; Homo.
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97.3%; Pred. No. 5.5e-188;
Live 0; Mismatches 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5759117"
/clone=lib="NIH MGC_116"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /lab_host-"DH10B"
                                                                                                                                                                                                                                   BM923480.1 GI:19373859
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Best Local Similarity 97.39
"....hes 759; Conservative
                                                                                                                                                       5', mRNA sequence.
BM923480
                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
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Mus musculus
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         insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by Gruber (Invitrogen). Research Genetics tracking code 023. Note: this is a NIH_MGC Library."
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                                                                                                                                                                  61 TGTGGATTATGTCATGAACTACTGGAAGGACAATGGAGCACCAGCTGAGAACGT
                                                                                                                                                                                             TGGATTCCCTACCTATGGACACAACTTCATCCTGAGCAACCCCTCCAACACTGGAATTGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Average insert size 1.4 kb,
                                                                                                  Gaps
                                                                              Length 1038
                                                                                                 10;
                                                                                                Indels
                                                                            Score 708.8; DB 13;
Pred. No. 2.5e-186;
0; Mismatches 42;
upon cloning).
                                                                            43.6%;
llarity 93.8%;
Conservative
  destroyed
                                                                                       Similarity
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02-MAY-2002

EST

892 bp mRNA linear EST NCI_CGAP_St1 Mus musculus cDNA clone

BQ231098 AGENCOURT_7578138

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1. .892
/organism="Mus musculus"
/db_xref="taxon:10090"
/db_xref="taxon:10090"
/clone="IMAGE:6051880"
/clone=lib="NOI_CGAP_Stl"
/lab_host="NOII (II-resistant)"
/note="Organ: stomach; Vector: pCMV-SPORT6; Site_1: SalI;
/note="Organ: stomach; Vector: pCMV-SPORT6; Site_1: SalI;
Site_2: NotI; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.77 kb. Library constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
10 a 226 c 216 g 230 t lothers
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Sciurognath1; Muridae; Musinae; Mus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                     Email: cgapbs-remail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llh.gov
Plate: LLAM13305 row: k column: 05
High quality sequence stop: 772.
High quality sequence stop: 772.
                                                                                                                                                                                                                            Collection
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            42.0%; Score 681.8; DB 14; Length 85.6%; Pred. No. 7.7e-179; tive 0; Mismatches 128; Indels
                                                                                                                                                                         1 (bases 1 to 892)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Unpublished (1999)
                                                                                                                                                                                                                                                                     Contact: Robert Strausberg, Ph.D.
                                                                                                                                    Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                              GI:20412498
[MAGE: 6051580 5', mRNA
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2 CCAAGCAGATCAACCACAGCTGAGGTCAACGCTCAACCTCAACTACTCGTCCAACTACTCCGCTCAACTACAACCACAACCACAACCACAACCACAACCACAACCACAACCACA	000 AACCATGACAAGCTTATTCTCCTCACAGGTCTTGTCCTTATACTGAATTTGCAGCTCGG	QY 520 GGAGTACCCTGGCTCTCGTGGAGCCTCTCAGGACAGCATCTCTTCACTGTCCTGGT 579 III	OY 880 GCTCATCGTTGGATTCCCTACGACACA-ACTTCATCCTGACCAACCA 938	בעגקניטרמן שפרמצטמן רווטניטגני גומווזמנמן אבר הפטומנמן בערכיכטיטוודי
		0 44 10	e_1: Sali Oligo dr. d by Life	o; mismacches 120; indeis 1; daps

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824 bp mRNA linear EST 29-AUG-2001
mRNA sequence.
BI518221
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                                                                                                                                                                                                                    724 AACAATGGAGCCCCAGCTGAGAAGCTCATTGTTGGATTCCCAGAGTTTGGACACACCTTC 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     L Unades 1 CO 344)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

National Institutes of Health, Mammalian Gene Collection (MGC)

L Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs r@mail.nih.gov

Tissue Procurement: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Right quality sequence start: 24

High quality sequence start: 24

High quality sequence stop: 746.
                                                                                                          CAGGCTGGCTATGAGATCCCTGAACTTTCTAAGTACCTGGATTTCATCCATGTCATGACA
                                    TACGACCTCCATGGCTCCTGGGAGGCTACACTGGAGAGAACAGCCCCCTCTACAAATAC
                                                       DB 13; Length 824;
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                                                                                                                                                                                                                                                        ATCCTGAGCAACCCCTCCAACACTGGAATTGGTGCCCCCAC 957
                                                                                                                                                                                                                                                                              Score 641.2; DB 13
Pred. No. 1.6e-167;
); Mismatches 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5182357"
/clone_lib="NIH_MGC_l16"
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                               Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rémail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://mage.llni.gov
Plate: LLAMIOBIG row; g column: 09
High quality sequence stop: 824.
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/clone=lib="MCI_CGAP_SG2"
/clone_lib=host="DH10B (TI phage-resistant)"
/note="Organ: salivary gland; Vector: pCMV-SPORT6; Site_2: Sali; Cloned unidirectionally. Primer: (dr. Average insert size 1.3 kb. Constructed by Life Technologies. Note: this is a NCI_CGAP Library."
                              NIH WGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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Pred. No. 6.3e-170;
0; Mismatches 107; Indels
                                                                                                                                                                                                                                                                                                                              /organism="Mus musculus"/strain="FVB/N"
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al Similarity 87.0%;
714; Conservative
                 (bases 1 to 838)
                                                                     Unpublished (1999)
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DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.W.A.G.E. Consortium/LLNL at:
http://image.llnl.gov. d column: 20
Plate: LLAM10846 row: d column: 20
High quality sequence stop: 836.
Location/Qualifiers
1. 855
/organism="mwa musculus"
/strain="FWB/N"
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/clone="lMAGE:4924003"
/clone="lMAGE:4924003"
/clone="lib="mwa musculus"
/db_raref="lataxon:10090"
/db_r
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Pred. No. 2.2e-164;
0; Mismatches 110; Indels
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Local Similarity 86.5%;
nes 718; Conservative
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Murinae; Mus.
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Email: Ggapbs-r@mail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
                                                    AAGCTCATCGTT - - GGATTCCCTACCTATGGACACAACTTCATCCTGAGCAACCC -
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Sciurognathi; Muridae;
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Rukaryota, Metazoa; Chordata; Craniata; V

Mammalia; Eutheria; Rodentia; Sciurognath

1 (bases 1 to 855)

14. Mather/Amgc.nci.nih.gov/.

National Institutes of Health, Mammalian

Unpublished (1999)
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BG866775 847 bp mRNA linear EST 29-MAY-2001 602786605F1 NCI_CGAP_SG2 Mus musculus CDNA clone IMAGE:4912608 5',
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NIH-MGC http://mgc.nci.nih.gov/.
National institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                     642 TCACTGCTGCAGTAGCTGCTGGCATCTCCAATATCCAGTCTGGCTATGAGATCCCCCAAC
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Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://mage.llnl.gov
Plate: LLAM10816 row: j column: 01
High quality sequence stop: 774.
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Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
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NIH-WGC http://mgc.noi.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: cgapDs-remail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can http://mage.llnl.gov
http://mage.llnl.gov
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/organism="Mus musculus"
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Contact: Robert Strausberg, Ph.D.
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/lab_host="DH10B (Tl phage-resistant)"
/note="Organ: salivary gland; Vector: pCMV-SPORT6; Site_l:
NotI; Site_2: Sali; Cloned unidirectionally. Primer: Oligo
dT. Average insert size l.3 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
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                                                                                                                          GGAGTACCCTGGCTCTCGTGGGAGCCCTCCTCAGGACAAGCATCTCTTCACTGTCCTGGT
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                                                                                             100 AACCATGACAAAGCTTATTCTCCTCACAGGTCTTGTCCTTATACTGAATTTGCAGCTCGG
                                                                                                     TTTCAATGGCCTGAAAATAAGAACAGCCAGCTGAAAACTCTCCTGGCCATTGGAGGCTG
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                                                               Length 847
                                                                             Indels
                                                               Score 626; DB 12;
Pred. No. 2.8e-163;
0; Mismatches 130;
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ilarity 84.5%;
Conservative
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                                                                       Local Similarity
es 715; Conserv
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E I (bases 1 to 809)

I NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

U Oppublished (1999)

Contact: Robert Strauberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Jeffrey E. Green, M.D.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

http://image.llnl.gov

htdy quality sequence stop: 804.
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/organism="FVBA"
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/clone="Inho"NcI_CGAP_SG2"
/lab_host="Drivery gland; Vector: pCMV-SPORT6; Site_:
/note="Organ: salivary gland; Vector: pcMV-SPORT6; Site_:
/note="Organ:
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Pred. No. 1.7e-162;
0; Mismatches 109;
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1095 ATGTGTGGGTTGGCTATGACAACATCAAGAGCTTCGATATTAAGGCTCAATGGCTTAAGC 1154
                                                                                 TGGGCCCTATGCCAAGGAGTCTGGGATCTGGGCTTACTACGAGATCTGTACCTTCCTGAA 1035
                                                                                                            1036 AAATGGAGCCACTCAGGGAT-GGGATGCCCTCAGGAAGTGCCTTATGCCTATCAGGGCA 1094
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Search completed: July 3, 2003, 08:40:34 Job time: 2441.98 secs

OM nucleic - nucleic search, using sw model

Run on:

July 3, 2003, 02:31:01; Search time 4011.96 Seconds (without alignments) 11062.367 Million cell updates/sec

US-10-004-219B-3 1525

1 atggccaagctacttctcgt......taaaattggtagccaaaaca 1525 Perfect score: Sequence:

Scoring table:

IDENTITY_NUC Gapop 10.0 , Gapext 1.0

4109280 Total number of hits satisfying chosen parameters:

2054640 seqs, 14551402878 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 08
Maximum Match 1966
Listing first 45 summaries

GenEmb1:*

Database

gb_v1:* em_ba:* em_fun:* gb_ro:* gb_sts:* gb_sy:* gb_un:* gb_ba:* gb_htg:* gb_in:* gb_ov:* gb_pat:* *:шо_а́б gb_pl:* gb_pr:*

em_hum:* em_in:* em_om:

em_ov:* em_pat:* em_or:*

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em_htg_inv:* em_htg_other:*

em_htgo_hum:* em_htg_mam:* em_htg_vrt:* em_htg_rod:*

em_htgo_mus:* em_htgo_other:*

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description		90003 Mus r	8 Mu	m	571 Mus	HOM	3s t	AB025008 Homo sap1	adneu	_	D87757 Mus musculu	4ns	dus	Ę	ě	m	ojt	Ę	ğ	adnenc	squenc	AR172107 Sequence	U62662 Homo sapien	equenc	AR206042 Sequence	AR212139 Sequence	AX108752 Sequence	U87259 Macaca mula	man	D32137 Mouse mRNA	Mac	pto hama	E09046 cDNA encod1	lesocr1	lamster m	Ä	2461	12834 Sequ	514 Human	35 Human YK	11460 Homc	15 Human c	539 Bovin	45 CD	55165 Homo s	19 Ovis arie	
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ALIGNMENTS

AF290003 1530 bp mRNA linear ROD 27-FEB-2001 Mus musculus acidic mammalian chitinase precursor, mRNA, complete AF290003 AF290003.1 GI:12597290 RESULT 1
AF290003
LOCUS
DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM

Mus musculus.

Mus musculus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostom1;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

1 (bases 1 to 1530)

Boot, R.G., Blommaart, E.F., Swart, E., Ghauharali-van der Vlugt, K.,

Bijl, N., Moe, C., Place, A. and Aerts, J.M. REFERENCE AUTHORS

542

600 602 99

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TCCCAAGAAGTGCCCTATGCCTATAAGGCCAACGAGTGGCTTGGCTATGACAATATCAAG
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                                                            CTCAATGTGGATTATGTCATGAACTATTGGAAGAACAATGGAGCCCCAGCTGAGAAGCTC
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Tapfythwystsonropfityvirklroyspecididwey pesrespeddriluvy
Tapfythwystsonropfityvirklroyspecididwey pesrespeddrilyvix
Emreapedealespeddringythyravandrosisniqasyepesrespeddriligs
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Sydniksfsongpacaytroagfwayyeictrescatewndasorypyaykanew
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Gylapydyspeytprescsgsgsssgssgsgsgsgscadkadgrypyarausistik
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Meibergdreef 15, Amsterdam 1105
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                                                                         Swart, E. and Aerts, J.M.
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/tissue_type="lung"
/dev_stage="9-11 weeks"
3. .1424
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                       (9), 6770-6778 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1525;
Pred. No. 0;
                                                   2 (bases 1 to 1530)
Boot,R.G., Verhoek,M., Swart,E. and
Direct Submission
Submitted 26-Jul-2000) Dept. of Bi
Center, University of Amsterdam, Me
A2, The Netherlands
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                          /organism="Mus musculus"
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                                                                                                                                                                                     /db_xref="taxon:10090"
                                                                                                                                    Location/Qualifiers
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Best Local Similarity 100.0%;
Matches 1525; Conservative 0.
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J. Biol. Chem. 276
21125893
Identification of
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TITLE
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MEDLINE
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                                           old female mouse"
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                                             week
                                                                                                                                                                                                                                                                                                                                                                                                                     10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            5;
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/clone="MGC:18771 IMAGE:4165150"
                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                  /note="Vector: pCMV-SPORT6" 323. .1420
                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1519.8;
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99.98;
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Best Local Similarity 99.9
Matches 1521; Conservative
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                                                                                                                                                                                                                     TCTGGAGGCAGTGGATTCTGTGCCGACAAAGCAGATGGCCTCTACCCTGTGGCAGATGAC 1320
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BC011134 1538 bp mRNA linear ROD 07-AUG-2002 Mus musculus, Similar to eosinophil chemotactic cytokine, clone MGC:18771 IMAGE:4165150, mRNA, complete cds.
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 1538)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
Submitted (25-VDL-2001) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Clone distribution: MGC clone distribution information can be for
through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Series: IRAK Plate: 24 Row: e Column: 11.
Location/Qualifiers
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Ω.
1144 TCTACTTTGAACAAAGCCCTTGGCATATCCACTGAAGGTTGCACAGCTCCTGACGTGCCT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VIF. MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-remail.inh.gov
Tissue Procurement: Jeffrey E. Green, M.D.
CDNA Library Preparation: Life Technologies, Inc.
DNA Library Arrayed by: The I.M.A.G.E. Consortium (Linl.)
DNA Sequencing by: Baylor College of Medicine Human Genome Sequencing Center
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S., Martin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: amg@bcm.tmc.edu
Gunaratne, P.H., garcia, A.M., Lu, X., Hulyl
Yoon, V.S., Kowis, C.R., Lawrence, S., Mart.
Richards, S., Gibbs, R.A.
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house

VERSION KEYWORDS SOURCE ORGANISM

REFERENCE AUTHORS TITLE JOURNAL

REMARK COMMENT

DEFINITION

BC011134 LOCUS

RESULT 3

ACCESSION

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FEATURES

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Gaps ; 62 9

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Price, P.A., Harris, S.C. and Williamson, M.K.
Direct Submission
Submitted (26-MAY-1999) Biology, University of California, San
Diego, 9500 Gilman Drive, Mail Code 0368, La Jolla, CA 92093-03687, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              364 TCAGTCATCAAATTTCTGCGTCAGTATGGGTTTGATGGACTGGACTGGACTGGGATAC 423
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                                                                                                           /db_xxef="Arcc:1476668"
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-1. :1526
-1. :1526
-1. :1419
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                                                                                                  /strain="ATCC1476668
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/organism="Mus muscu
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Bukaryota, Metzoo, Chordata, Craniata, Vertebrata, Euteleostomi,

Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.

(bases 1 to 1526)

Price, P.A., Harris, S.C. and Williamson, M.K.

With, A Puttive Mouse Chitinase
Unpublished

2 (bases 1 to 1526)
                                                                                                  1021 CTTCAGTGTTAAAGGCTCAGTGGCTTAAGCAGAACAATTTTGGAGGTGCCATGATCTGGGC
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                      TGTTGGATTCCCAGAGTATGGACACACCTTCATCCTGAGAAACCCCTCTGATAATGGAAT
                                                                   GGCCTACTATGAGATTTGCACCTTTCTGAGAAGTGGAGCCACTGAGGTCTGGGATGCCTC
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Best Local Similarity 83.4%;
Matches 1198; Conservative
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EMREAFEQGARQIPRYPANAPAGISNIQSGYEIPOLSQYLDY HHWTYDLHGSW
EGYTGENSPLYKYPTDTGSNAYLNVDYVWNYWKDNGAPAEKLIVGFPTYGHPILSNP
1441 AATTICIGCACTCTCCTTIACTCCTCACCAAAGTAACTATCTTCCCTTTAACCTTAIGC 1500
                                                                                                                                                                                                                                                 1625 bp mRNA linear PRI 27-FEB-2001 alian chitinase precursor, mRNA, complete
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SYDNIKSPIDIRAWLKHNKFGGAWWAADLDDFTGTFCNNGKFPLISTLKKALGLOSA
SCTARAQPIEPITAPSGSGNGSGSSSSGGSGGGGGGGAVRANGLYPVANNRNAFWHC
VNGVTYQQNCQAGLVFDISCDCCNWA"
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Boot, R.G., Blommaart, E.F., Swart, E., Ghauharali-van der Vlugt, K., Bijl, N., Moe, C., Place, A. and Aerts, J.M.
Identification of a novel acidic mammalian chitinase distinct from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="chitinase precursor; AMCase; chitinase activity demonstrated by expression in COS cells; similar to sequences presented in GenBank Accession Numbers AB025008 and AB025009"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Doot,R.G., Verhoek,M., Swart,E. and Aerts,J.M.
Boot,R.G., Verhoek,M., Swart,E. and Aerts,J.M.
Direct Submission
Submistered (26-JUL-2000) Dept. of Biochemistry, Academic Medical
Center, University of Amsterdam, Meibergdreef 15, Amsterdam 1105
AZ, The Netherlands
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 ATGCCCAAGCTACTTCTCGTCACAGGTCTGGCTCTTCTGCTGAATGCTCAGCTGGGGTCT
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Pred. No. 4.3e-313;
0; Mismatches 230;
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/organism="Homo sapiens"
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/tissue_type="stomach; lung"
104. .1534
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                                                                                      AATAAAATTGGTAGCCAAAACA 1525
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1354 bp mRNA linear PRI 25-NOV-1999
Homo sapiens TSA1902-L mRNA for novel member of chitinase family,
AB025008
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AYQGNVWVGYDNVKSFDIKAQWLKHKKFGGAMVWAIDLDDFTGTFCNQGKFPLISTLK
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387 c 348 g 308 t
                                                                                                                                                                                        /translation="MySTPENROTFITSVIKFLRQYEFDGLDFDWEYPGSRGSPPQDK
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 GCCATTGACCTGGATGATTTCACAGGCACTTTCTGCAACCAGGGCAAGTTCCCCCTGATA 1152
                                                                                                                                                                                                                                       AGAAATGCTTTTTGGCAGTGCATCAATGGAATCACATACCAGCAGCATTGTCAAGCAGGG 1380
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Direct Submission.

Submitted (16-MAR-1999) Akihiko Saito, Otsuka Pharmaceutical Co., Ltd., Otsuka GEN Research Institute; 463-10 Kagasuno Kawauchi-cho, Tokushima, Tokushima 771-0192, Japan (E-mail:saito@otsuka.gr.jp, Tel:81-88-655-2888, Fas:81-88-637-1035)

Location/Qualifiers
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                    1153 AATACCTTGAAGGATGCTCTTGGCCTGAAGAGTGCAACCTGTAATGCCTCCAGGCAGTCC
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                                                                                                   TCCGAGCCAGTGACTACTCCTCCAGGAAGTGGGAGTGGGGGGTGGAAGCTCCGGAGGAAGC
                                                                                                                                                                      TCTGGAGGCAGTGCATTCTGTGCCGACAAAGCAGATGGCCTCTACCCTGTGGCAGATGAC
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novel member of chitinase family; TSA1902-L.
Homo sapiens cDNA to mRNA.
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Pred. No. 2.5e-255;
0; Mismatches 230;
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157. .1263
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80.9%;
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Matches 1013; Conservative
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                                                                                                                                      TTCAAGCCTGACAACATCGACCCCTGCCTCTGCACTCACCTGATCTATGCCTTCGCTGGG 192
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Oy 1257 AAGCTCTGGAGGCAGTGGATTCTGTGCCGACAAA Db 1098 CAGCTCGGAGGAGTGGATTCTGTGCTGCAGAAA Oy 1317 TGACAGAAATGCTTTTGGCAGTGCATCAATGGA Oy 1317 AGCCTTTTTGTTTTTGTACCAGCTGCATGATGGA Oy 1377 AGGCTTGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	RESULT 8 AX405989 LOCUS LOCUS Sequence 404 from Patent W00222660. ACCESSION AX405989 VERSION KEYWORDS SOURCE HOMEO SAPIENS BUARTYOLA; MELAZOA; Chordata; Crania Mammalia; Butheria; Primates; Catarr REFERENCE AUTHORS Tangy Y.T., Liu,C., Zhou,P., Asundiy. Xue,A.J., Yangy Y., Wehrman,T. and Dr TILE Novel nucleic acids and polypeptides JOURNAL HYSBO, INC. (US) FEATURES 1.1369 bp D 1369 bp D TILE Novel nucleic acids and polypeptides JOURNAL HYSBO, INC. (US) Location/Qualifiers 1.1369 bp D DETITE NOVEL NUCLE(US) 1.1369 bp D D DETITE NOVEL NUCLE(US) 1.1369 bp D D D D D D D D D D D D D D D D D D D	9606" 9606" 9735096 9735096 973718" 973718" 973718" 973718"	Query Match 56.0%; Score 854; DB Best Local Similarity 82.6%; Pred. No. 1.1e Matches 993; Conservative 0; Mismatches Oy 236 CTTTCAATGATGAAAAAGGAACAGGAACTG Db 65 CTTATACTGAATTGCAGCTCGGAACAGCAGCT	Oy 296 GGAACTTTGGAACTGCTCCTTTCACTACCTGCT	305
186 GAACAATGAGATCACCACATAGAATGGATGATGTTACTCTCTATAAAGCTTTCAATGA 245	366 AGTCATCAAATTCTGCGTCAGTATGGGTTTGATGGACTGGACTGGGACTGGGAATACCC 425 198 AGTCATCAAATTCTGCGTCAGTATGACGGGCTGGACTGGGACTGGGAATACCC 425 198 AGTCATCAAATTCTGCGCCAGTATGACGGCTGGACTTTGACTGGGAGTACCC 257 426 AGGCTCACGTGGGAGCCCTCCTCAGGACAAGCTTTGACTGTCGTGGAAAT 485 1111 1111	66 TGGGGGAATAGTCCTCTTACAAATACCCTACTGAGACTGGTAGCATGCCTACCTCAA 725 1 1 1 1 1 1 1 1 1 1	906 CTACTATGAGATTTGCACCTTTCTGAGAAGTGGAGCCACTGAGGTCTGGGATGCCTCCA 965	1026 CAGTGTTAAGGCTCAGTGGCTTAAGCAGAACAATTTTGGAGGTGCCATGATCTGGGCCCAT 1085	
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TPITSVIKELRQYEFDGLDFDWEYPGSRGSPPQDK
PRLMVTAAVAAGISNIQSGYETPOLSGYLDYTHVW
DTGSNAVINNVYNTWKDNGAPAEKLIVGFPYG
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KHNKFGGAMVWAIDLDDFTGTFCNQGKFPLISTLK
PSGSGGSSGGSGGGGGGGGGTAVAN
FDTSCDCCNWA"

FDTSCDCCCNWA" GAATCACATACCAGCAGCATTGTCAAGC 1376 1,V., Zhang,J., Zhao,Q.A., Ren,F., Drmanac,R.T. les 02; CAAAGCAGATGGCCTCTACCCTGTGGCAGA 1316 ä PAT 14-JUN-2002 STITCACITCICAGAACCGCCAGACCT 355 IATGGGTTTGATGGACTGGACTTGGACT 415 CAGGACAAGCATCTTCACTGTCCTGG 475 SCTATTGAGAGCAACAGGCCCAGACTGA 535 iata; Vertebrata; Euteleostomi; rrhini; Hominidae; Homo. Gaps 6 DB 6; Length 1369; 1e-254; s 200; Indels 5 linear oduct" DNA 1257 ò

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/translation="makliivtglailinvolgssyolmcyytswakdrpiegsfkpg
NIDPCLCTHLIYAFAGMQNNEITYTHEQDLRDYEALNGLKDKNTELKTLLAIGGWRFG
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DGYTGENSPLYKSPYDIGKSADLNVDSIISYWKDHGAASEKLIVGFPAYGHTFILSDP
SKTGIGAPTISTGPPGKYTDESGLLAYYEVCTFLNEGATEVWDAPQEVPYAYQGNEWV
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                                                                                                                                        2 (bases 1 to 1525)
Chang, N.C., Hung, S.I., Hwa, K.Y., Kato, I., Chen, J.E., Liu, C.H. and
                                      Sciurognathi; Muridae; Murinae; Mus
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                      Euteleostomi;
                                                                                       protein (YM-1)
peritoneal macrophages
                                                                                                                                                                                                                                                                                         Chang, N.-C.A., Liu, C.-H. and Chang, A.C.
Direct Submission
Submitted (27-APR-1993) Microbiology and Immunology, National
Yang Ming University, 155, Sect. II, Li-Noon St, Taipel, Taiwan
                                                                                                                                                                                                                                                                                                                                                                                                                            and Immunology, National
Li-Noon St, Taipei, Taiwan
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Sequence update by submitter
On Nov 13, 2000 this sequence version replaced gi:202441.
Location/Qualifiers
1. 1525
/organism="Mus musculus"
/db_xref="taxon:10090"
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/dev_stage="adult"
ne
/....="Wml"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1525;
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                      Vertebrata;
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                                                                                                                                                                                         A macrophage protein, Yml, transiently exprinflammation is a novel mammalian lectin
J. Biol. Chem. 276 (20), 17497-17506 (2001)
                                                                    Chang, N.-C.A., Liu, C.-H. and Chang, A.C. Molecular characterization of a secretory transiently expressed by activated murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 10;
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Pred. No. 3.7e-211;
); Mismatches 299;
                      Craniata;
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                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (13-NOV-2000) Microbiology
Yang-Ming University, 155, Sect. II,
Mus musculus
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
1 (bases 1 to:1525)
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1507
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a 343
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llarity 74.9%;
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Mus musculus secretory protein precursor (Yml) mRNA, complete cds.
M94584
 AGGGCTACACTGGGGAGAATAGTCCTCTTTACAAATACCCTACTGAGACTGGTAGCAATG
                                                                                                                                                         CCTACCTCAATGTGGATTATGTCATGAACTATTGGAAGAACAATGGAGCCCCCAGCTGAGA
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/translation="Makilturglatilinvolgssyolmcyytswakdprpiegsfkpg
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GYDNVRSFKLKRQWLKDNNLGGAVVWPLDMDDFSGSFCHQRHFPLTSTLKGDLNIHSA
SCKGPY"
                                                                  12-JAN-2000
                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 1506)

Owhashi,M., Arita,H. and Hayai,N.

Gowhashi,M., Arita,H. and Hayai,N.

Jachification of a novel eosinophil chemotactic cytokine (ECF-L) as a chitinase family protein

J. Biol. Chem. 275 (2), 1279-1286 (2000)

2 (bases 1 to 1506)

Owhashi,M.
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  1153 TCTACTTTAAAGGGAGATCTCAATATACACAGTGCAAGTTGCAAGGGCCCTTA 1205
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                                                                                                                                                                                                                                                                                                                                                                         version replaced gi:1545818
                                                                   ROD
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Submitted (06-SEP-1996) Makoto Owhashi, The University crowshima, Faculty of Integrated Arts and Sciences; 1-1
Minami-Johsanijam, Tokushima, Tokushima 770, Japan
(E-mail:ohashi@las.tokushima-u.ac.jp, Tel:0886-56-7261,
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Pred. No. 1.2e-210;
0; Mismatches 300;
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1. .1506
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/db_xref="G1:6015436"
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    .1506
    /organism="Mus musculus"

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On Oct 7, 1999 this sequence ver
Sequence updated (05-Oct-1999).
Location/Qualifiers
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Mus musculus bone marrow
Mus musculus
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Mus musculus mRNA for E
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D87757.2 GI:6015435
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                                                TITGGAACTGCTCCTTTCACTACCATGGTTTCCACTTCTCAGAACCGCCAGACCTTCATT
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AND MUS TOTAL SECRETED PROTECULS TM2 MRNA, COMPLETE CGS.

AY049765.2 GI:22123906

DEFINITION RESULT 11 AY049765 LOCUS

ACCESSION VERSION KEYWORDS

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Webb.D.C., McKenzle,A.N. and Foster,P.S.
Expression of the Ym2 lectin-binding protein is dependent on interleukin (IL)-4 and IL-13 signal transduction: identification of a novel allergy-associated protein
J. Biol. Chem. 276 (45), 41969-41976 (2001)
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NGYTGENSPLYKSPYDIGKSADLNVDSIITYWKDHGAASEKLIVGFPAYGHFFILSDP
SYNGIGDPTVSAGPPGKYTNEQGLLAYFEICTFLNEGAFEIFDATQEVPYAYLGNEWV
GYDNVRSFKLKAQWLKDNNLGGAVVWPLDMDDFSGSFCHQGRFPLTTTLKRDLNVHSA
SCKASYRGEL"
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NIDPCLCTHLIYAFAGMKNNEITYLSEQDLRDYEALNGLKDRNTELKTLLAIGGWKFG
PAPFSSMVSTPQNRQTFIKSVIRFLRQYNFDGLNLDWQYPGSRGSPPKDKHLFSVLVQ
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Webb,D.C. and Foster,P.S.
Direct Submission Biochemistry and Molecular Biology, John Submitted (02-300.) Biochemistry and Molecular Biology, John Curtin School of Medical Research, Australian National University, Off Mills Rd, Acton, Canberra, ACT 2601, Australia (bases 1 to 1209)
Webb,D.C. and Foster,P.S.
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Submitted (06-AUG-2002) Blochemistry and Molecular Biology, John
Curtin School of Medical Research, Australian National University,
Off Mills Rd, Acton, Canberra, ACT 2601, Australia
Sequence update by submitter
on Aug 6, 2002 this sequence version replaced gi:15705156.
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/db_xref="taxon:10090"
/note="isolated from the lung lavage from allergic mice"
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/protein_id="AAL03953.2"
/db_xref="G1:22123907"
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/organism="Mus musculus"
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Mammalia, Eutheria, Rodentia,
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/traislation="maklilytglaillnvqlgssyqlmcyytswakdrptegsfkpg
nidpclcthliyafagmknneitylseqdlrdyealhglkdrntelktllaiggwkfp
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GYDNYRSFKLKAQWLKDNNLGGAVVWPLDMDDFSGSFCHQGRFPLTTLKRDLNVSA
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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Submitted (05-DEC-2001) Institute of Microbiology & Immunology,
National Yang-Ming University, #155 Sec. 2 Li-Nong St., Peitou,
Taipei 112, Taiwan
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Pred. No. 1.1e-208;
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/protein_id="AAL57751.1"
/db_xref="G1:18086514"
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                                            Ym2
                                                                                                                               Location/Qualifiers
1.1209
7.organism="Mus musculus"
/strain="BALB/c"
/db_xref="taxon:10090"
/clone"pGEMT-ez-ym2.s"
/tissue_type="stomach"
1.1209
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                                            Tissue-specific Expression
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il Similarity 74.5%;
889; Conservative
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                               Chang, N. -C.A.
                                                        Unpublished
            Mammalia;
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ISTLKKALGLOSASCTAPAPQFIEPTTAAPSGSGNGSGSSSSGGSGGGGGGRANGI
YPVANNRNAFWHCVNGVTYQQNCQAGLVFDTSCDCCNWA"

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                                                                                                                                                                                                    CCAACGCCTCTACCCCGTGGCAAATAACAGAAATGCCTTCTGGCACTGGGTGAATGGGG 4083
                                                                                                                                                                                                                                                           PRI 25-NOV-1999
                                                                                                                                1291
                                                                                                                                                                                    CAGATGGCCTCTACCCTGTGGCAGATGACAGAATGCTTTTTGGCAGTGCATCAATGGAA 1351
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
Submitted (16-MAR-1999) Akihiko Saito, Otsuka Pharmaceutical Co.,
Lido, Otsuka GEN Research Institute; 463-10 Kagasuno Kawauchi-cho,
Tokushina, Tokushina 71-0192, Japan (E-mail:saito@otsuka.gr.jp,
Tel:81-88-665-2888, Fax:81-88-637-1035)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi;
Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                   AB025009 1188 bp mRNA linear PRI 25-NOV-19
Homo sapiens TSA1902-S mRNA for novel member of chitinase family,
complete cds.
                                                                                      AGGGAAAATTTCCTCTGACTTCTACTTTGAACAAAGCCCTTGGCATATCCACTGAAGGTT
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                                                                    GCACAGCTCCTGACGTGCCTTCCGAGCCAGTGACTACTCCTCC - - - - - - - AGGAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Saito, A., Ozaki, K., Fujiwara, T., Nakamura, Y. and Tanigami, A. Isolation and mapping of a human lung-specific gene, TSA1902, encoding a novel chitinase family member (Gene 239 (2), 325-331 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /product="novel member of chitinase family"
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Mammalia; Eutheria; Primates;
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novel member of chitinase
Homo sapiens cDNA to mRNA.
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218 ¢ 230 g 267 l 1 others
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Submitted (27-APR-1996) Sergey V. Shmelkov, Molecular Basis of
Differentiation and Development, Engelhardt Institute of Molecular
Biology, Vavilov 32, Moscow 117984, Russia
Location Qualifiers
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                                                                            Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 994)
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                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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                                                                                                          Shmelkov,S.V., Zinovjeva,M.V. and Belyavsky,A.V.
Mouse chitinase-related protein mRNA (MCRP), partial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 994;
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1134 TCTGACTTCTACTTTGAACAAAGCCCCTTGGCATATCCACTGAAGGTTGCACAGCTCCTGA
                                                             1014 TATCAAGAGCTTCAGTGTTAAGGCTCAGTGGCTTAAGCAGAACAATTTTGGAGGTGCCAT
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July 2, 2003, 22:31:11; Search time 349.54 Seconds (without alignments) 9825.200 Million ceil updates/sec
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1 atggccaagctacttctcgt......taaaattggtagccaaaaca 1525
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
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Listing first 45 summaries
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Result		Query				
8	Score	Match	Match Length DB	DB	ID	Description
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4	714.6			22	AAH42023	Disease treatment
S	426.8			19	AAV10435	Human Chitinase Cl
φ	426.8			20	AAZ21847	MO-218 clone of hu
7	426.8			22	AAD03759	Human chitinase cD
80	426.8			24	ABL57380	Human chitinase cD
6	426.8			α		To eseniting change

New proteins, peptides and DNA for treatment of bronchial asthma, chronic occlusive lung disease and infectious disease

Human chitinase cD Human chitinase c1 Human chitinase c1 Human chitinase cD Human chitinase cD Human chitinase cD Human chitorriosid Murine oviduct spe Hamster oviduct spe Hamster oviduct spe Human digestive sy DNA encoding a hum Human cartilage gp Bovine oviduct spe Human cartilage gp DNA encoding a hum Human cartilage gp DNA encoding a hum CoDNA sequence #402 YKL-40 gene. Homo Human cartilage gp DNA encoding a hum CoDNA sequence #402 YKL-40 gene. Homo Human cartilage gp DNA encoding a hum CoDNA sequence #402 YKL-40 gene. Bovine whey protei	Osteoarthritis tis Gene encoding poly Drosophila melanog Human secreted pro Human glycoprotein Drosophila melanog Drosophila melanog Manduca sexta larv Human secreted exp Disease treatment Drosophila melanog Drosophila melanog Drosophila melanog
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                                                                                                                                                                                                                                                                                                           GGAGGAAGCTCTGGAGGCAGTGGATTCTGTGCCGACAAAGCAGATGGCCTCTACCCTGTG
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               TGGGCCTACTATGAGATTTGCACCTTTCTGAGAAGTGGAGCCACTGAGGTCTGGGGATGCC
                                                                                                                                                                                GCCATTGACCTTGATGACTTCACTGGCTCTTTCTGTGATCAGGGAAAATTTCCTCTGACT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               treatment of bronchial asthma,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 infection; chronic occlusive pulmonary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention provides the sequence of a protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New proteins, peptides and DNA for treatment of bronch chronic occlusive lung disease and infectious disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disease treatment related oligonucleotide SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 5; Page 100; 114pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  treatment;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                         The present invention provides the sequence of a protein which can be used in the treatment and prevention of infectious diseases. Inhibitors of the protein can be used to treat bronchial asthma and chronic occlusive pulmonary disease. The present sequence is an oligonucleotide described in the exemplification of the invention.
                                                                                                                                                                                                           GCCTACAATCTGATATGCTATTTCACCAACTGGGCCCAGTATCGGCCAGGTCTGGGGAGC
                                                                                                                                                                                                                                                                                                     TTCAAGCCTGATGACATTAACCCCTGCCTGTGTACTCACCTGATCTATGCCTTTGCTGGG
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                                                                                                                                                                   Gaps
                                                                                                                                      Length 1678;
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                                                                                                                                                                 229; Indels
                                                                                                           Sequence 1678 BP; 397 A; 497 C; 418 G; 366 T; 0 other;
                                                                                                                                      DB 22;
                                                                                                                                     Score 1042.6; DB 2;
Pred. No. 5.4e-307;
0; Mismatches 229;
Example 5; Page 107-108; 114pp; Japanese.
                                                                                                                                     68.48;
83.48;
                                                                                                                                                                 Conservative
                                                                                                                                                   Best_Local Similarity
Matches 1199; Conserv
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antiinfertility; cerebroprotective; cytostatic; rheumatic; gene therapy;
neuroprotective; antiparkinsonian; protein therapy; EST;
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tags
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                                                                                                                           CAGGAAGTGCCTTATGCCTATCAGGGCAATGTGGGGTTGGCTATGACAACATCAAGAGC
                                                                                                             ACTTTGAACAAAGCCCTTGGCATATCCACTGAAGGTTGCACAGGTCCTGACGTGCCTTCC
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T, Drmanac
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Yang Y, Wehrman T,
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P-PSDB; ABB97580.
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used in the treatment and prevention of infectious diseases. Inhibitors of the protein can be used to treat bronchial asthma and chronic occlusive pulmonary disease. The present sequence is an oligonucleotide described in the examplification of the invention.
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                                                                                                                                  GCTGCAGTAGCTGCTGCCAATATCCAGTCTGGCTATGAGATCCCCCAACTGTCA
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                                                                                                                                                                  AAGCCTGATGACATTAACCCCTGCCTGTGTACTCACCTGATCTATGCCTTTGCTGGGATG
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                                                                                                    Gaps
                                                                            DB 22; Length 1368;
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                                                                                                  Indels
                                                      Sequence 1368 BP; 324 A; 398 C; 349 G; 297 T; 0 other;
                                                                           Score 999.2; DB 22;
Pred. No. 8.3e-294;
0; Mismatches 213;
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ilarity 83.8%;
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e.g. in burn treatment, to regulate the immune system e.g. to treat multiple sclerosis, to regulate activin or inhibin e.g. to treat infertility, to regulate haemostasis or thrombolysis e.g. to treat stroke and cancer, to screen for drugs, to treat inflammatory conditions e.g. rheumatoid arthritis, and to treat nervous system disorders e.g. Parkinson's disease. The present sequence is a coding sequence of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CIGGAATTGGTGCCCCCCACTCTGGTGCTGCTGGGCCCTATGCCAAGGAGTCTG
                                                                                                                                                                           CTTATACTGAATTTGCAGCTCGGAACAGCCAGCTGAAAACTCTCCTGGCCATTGGAGGCT
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                                                                                                                                    Gaps
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                                                                                                              Length
                                                                                       393 C; 341 G; 308 T; 0 other;
                                                                                                                                 0; Mismatches 200;
                                                                                                           Score 854; DB 24;
Pred. No. 1.6e-249;
                                                                                                                                                                                                                                                                                                                                                56.0%;
82.6%;
                                                                                     Sequence 1369 BP; 327 A;
                                                                                                                                 Conservative
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                                                                                                                                   TGACTICTACTITGAACAAAGCCCTTGGCATATCCACTGAAGGTTGCACAGCTCCTGACG 1195
                                                                                                                                                                                            The present invention provides the sequence of a protein which can be used in the treatment and prevention of infectious diseases. Inhibitors of the protein can be used to treat bronchial asthma and chronic occlusive pulmonary disease. The present sequence is an oligonucleotide described in the exemplification of the invention.
                                                          GCTCCGGAGGAAGCTCTGGAGGCAGTGGATTCTGTGCCGACAAAGCAGATGGCCTCTACC
                                             TGCCTTCCGAGCCAGTGACTACTCCTCC -----AGGAAGTGGGAGTGGGGGTGGAA
                                                                                                                                                                                  ATTGTCAAGCAGGGCTTGTTTTTGATACCAGCTGTAATTGCTGCAACTGGCCATGAACCT
                                                                                                                                                                                                                                                                                                                                                                                                    disease;
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                                                                                                                                                                                                                                                                                                                                                                                                   infection; chronic occlusive pulmonary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     treatment of bronchial
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                                                                                                                                                                                                                                                                                                                                                                             Disease treatment related oligonucleotide SEQ ID
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Pred. No. 5.4e-207;
0; Mismatches 299;
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                                                                                                                                                                                                                                                                                                            BP.
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74.98;
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Best Local Similarity 74.9
Matches 894; Conservative
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chronic occlusive lung
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bronchial asthma; ds.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        this protein may be useful in treatment of Gaucher's disease and rheumatoid arthritis, where overexpression of the protein can damage the extracellular matrix. Chitinase also improves the activity of other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               agents and may allow a reduction in the dose of such agents,
                                                                                                                                                                                                   Chitinase, human, fungal infection; immunogen; diagnosis; treatment; Gaucher's disease; transgenic; detection; hybridisation; antifungal; rheumatoid arthritis; overexpression; extracellular matrix; ss.
                                   TCTACTTTGAACAAAGCCCTTGGCATATCCACTGAAGGTTGCACAGCTCCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1636;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          acids encoding human chitinase - useful as antifungal especially in combination with other antifungals
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Pred. No. 3.4e-119;
0; Mismatches 417;
                                                                                                                                                                                                                                                                                                                                                                       /note= "from clone MO-218"
                                                                                                                                                                                                                                                                     Location/Qualifiers
2..1402
/*tag= a
                                                                                                                                                                                                                                                                                                                                                            chitinase
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                                                                                                                                                                            Human chitinase clone MO-218 cDNA.
                                                                                                         BP
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                                                                                                         AAV10435 standard; cDNA; 1636
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Best Local Similarity 62.1%;
Matches 693; Conservative
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                                                                                TICAAGCCIGAIGACATIAACCCCIGCCIGIGIACICACCIGAICIAIGCCITIGCIGG 180
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This is the nucleotide sequence of an allelic form of the human chitinase enzyme, which is capable of degrading Chitin (a linear homo polymer of beta-1,4-linked N-acetylglucosamine residues).

Chitinase fragments are be used to screen for proteins or other molecules that specifically bind to the chitin-binding domain of human chitinase or that modulate its activity. These compounds are useful for immunization, as well as for purifying chitinase, as well as for detection and quantification of chitinase. Polynucleotide fragments of the invention are useful as a source of probes and primers, and to express the proteins recombinantly. The chitinase fragments, when conjugated to antifungal compounds, are used to treat animals, especially humans, infected with chitin-containing parasites such as fungi. Fungal infection treated include candidasis, aspergillosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           fragments of human chitinase used to treat fungal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chitin can be degraded by the enzyme chitinase. Use of whole chitinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein for treating infections, especially fungal infections, is problematic. In view of the increasing incidents of life-threatening fungal infection in e.g. immunocompromised individuals, there exists need for identifying new compounds for treating fungal infection. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mucormycosis, histoplasmosis, cryptococcosis, chromoblastomycosis,
sporotrichosis, and dermatophytoses.
                                                                                                                                                                                                                                        chitin; fungal infection; immunocompromised; AIDS; chemotherapy; organ transplant; parasite; chitin-binding; allele; vector; truncated protein; ds.
                                                                                                                                                                                                          MO-218 clone of human Chitinase, with noncoding 5'/3' regions.
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                                                         The present invention relates to a chitinase immunoglobulin (Ig) fusion product, comprising a human chitinase fused to at least a portion of an immunoglobulin chain. The fusion product is useful for treating fungal infections (mycoses) such as candidiasis, aspergillosis, blastomycosis, coccidioidomycosis, paracoccidioidomycosis, histoplasmosis, mucormycosis, cryptococcosis, chromoblastcmycosis, sporotrichosis and dermatophytoses. The fusion protein is useful for reducing the amount of non-chitinase antifungal agent needed to exert an antifungal activity. The fusion protein is also useful for preparing a medicament for the prophylactic or therapeutic treatment of fungal infections. Chitinase immunoglobulin fusion product has unexpectedly improved serum half-life and formulation properties. The present sequence is human chitinase cDNA from clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel chitinase immunoglobulin fusion product, useful for treating fungal infections and reducing the amount of a non-chitinase antifungal agent needed for the treatment \cdot
                                                                                                                                                                                                                                                                                                                          fungal infection; candidiasis; aspergillosis; cocidioldomycosis; blastomycosis; paracoccidioldomycosis; histoplasmosis; cryptococcosis; chromoblastomycosis; sporotrichosis; mucormycosis; dermatophytoses;
                                           GGCTTAAGCAGAACAATTTTGGAGGTGCCATGATCTGGGCCATTGACCTTGATGACTTCA
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/product- "Human chitinase from clone pMO-218"
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chitin-binding fragments of the present invention provide
                                                       DB 20; Length
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                                                      Score 426.8; DB 20;
Pred. No. 3.4e-119;
0; Mismatches 417;
                             BP; 361 A; 491 C; 440 G; 344 T; 0
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62.1%;
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                                                           Gaps
pMO-218. Chitinase enzymė degrades chitin which is a homopolymer of beta-(1,4)-linked N-acetylglucosamine residues.
                                          Length 1636;
                                                          ;
                                                          Indels
                        361 A; 491 C; 440 G; 344 T; 0 other;
                                       Score 426.8; DB 22;
Pred. No. 3.4e-119;
0; Mismatches 417;
                                                                                  28.0%;
ilarity 62.1%;
Conservative
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                        Sequence 1636 BP;
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                                                                 978 TCCGGGACAACCAGTGGGTGGGCTTTGATGATGTGGAGAGCTTCAAAACCAAGGTCAGCT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Co-administering chitinase to improve the effectiveness of fungicidal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence is that of cDNA clone MO-218 (ATCC 98077) encoding human chitinase (see ABB76291). The clone was isolated from a cDNA library prepared from peripheral blood monocyte-derived macrophages following sequence analysis. Also isolated was clone MO-13B (see AB£57381), which contains a single nucleotide difference in the coding region, changing the encoded amino acid at position 81 of the mature protein from glycine to serine. Northern blots showed highest chitinase gene expression in lung and ovary tissues. Expression in lung is consistent with a protective role against pathogenic organisms that contain chitin. The invention provides bluman chitinase polynucleosides and polypeptides, and materials and methods for the recombinant production of human chitinase products,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chitinase; enzyme; human; fungicide; antifungal; infection; candidiasis; aspergillosis; coccidioidomycosis; blastomycosis; paracoccidiodomycosis; histoplasmosis; cryptococcosis; ehromoblastcmycosis; sporotrichosis; mucormycosis; dermatophytosis; pneumocystis; gene; ss.
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     983 ATAAGGCCAACGAGTGGCTTGGCTATGACAATATCAAGAGCTTCAGTGTTAAGGCTCAGT
                                                                                                                                                                                                               ATGCCCCTGCTGCCCCTATACCAGACAGGCTGGGTTCTGGGCCTACTATGAGATTTGCA
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                                                                                                                                                          924 CCT-----GGAAGGGGCCACCAAACAGAGAATCCAGGATCAGAAGGTGCCCTACATCT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chitinase; chitotriosidase; chitin; infectious disease; gene therapy; vaccine; lysosomal lipidosis; daucher's disease; leishmandsis; sarcoldosis; X-linked adrenoleukodystrophy; multiple sclerosis; drug delivery; cosmetics; food; ss.
                                                                                                                                                                                                                                                                                                                               CTGGCTCTTTCTGTGATCAGGGAAAATTTCCTCTGA 1138
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which are expected to be useful as products for treating fungal infections or for the development of such products. Human childranse has a synergistic effect on the actions of other fungicides. It can be administered to improve the antifungal activity of a non-chitinase antifungal agent, especially amphotericin B or itraconazole, in the treatment of a fungal infection such as candidiasis, aspergillosis, coccidioidomycosis, blastomycosis, paracoccidioidomycosis, histoplasmosis, cryptococcosis, chromoblastomycosis, histoplasmosis, mucormycosis, dermatophytoses and Pneumocystis infections (all claimed). In particular, the fungal infection involves Candida, Aspergillus and/or Cryptococcus spp., whose growth is not effectively inhibited by contact with human chitinase alone.
                                                                                                                                                                                                                                                                                                                                                                               24 CAGGTTTCATGGTCCTGCTGATGATCCCATGGGGCTCTGCTGCAAAACTGGTCTGCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         324 ATATGGTAGCCACGGCCAACAACGTCAGACCTTTGTCAACTCGGCCATCAGGTTTCTGC
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Pred. No. 3.4e-119;
0; Mismatches 417; Indels 6;
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il Similarity 62.1%;
693; Conservative
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875 CTGGCACTCCAGGCCCCTTCACCAAGGAAGGAGGGATGCTGGCCTACTATGAAGTCTGCT
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13..1176
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                                                                                                                                                                                                                                                                                                      Human chitinase cDNA clone chi.39
                                                                                                                                                                                                                                     standard; cDNA; 1713
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  macrophage
          cDNA library using as probe a partial clone obtd. using primers (see also AAT50835-36) based on a chitotriosidase purified from a type I Gaucher disease patient. The 2 cDNA clones are the result of alternative splicing of RNA. Chitinase nucleic acid can be used for large-scale prodn. Of recombinant human chitinases, or can be incorporated into a gene therapy vector to treat or prevent infection by chitin-contg. pathogens.
                                                                                                                        Length 1643;
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chi.39 (see also AAT50834) were isolated from a human
                                                                                                                                              Indels
                                                                                                  Sequence 1643 BP; 364 A; 490 C; 442 G; 347 T; 0 other;
                                                                                                                        DB 18;
                                                                                                                       Score 426.8; DB 18;
Pred. No. 3.4e-119;
0; Mismatches 417;
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62.1%;
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693; Conservative
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ted into a gene therapy vector to treat or prevent by chitin-contg. pathogens.
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                                                 Sequence 1713 BP; 380 A; 503 C; 465 G; 365 T; 0 other;
                                                                       Score 426.8; DB 18;
Pred. No. 3.5e-119;
0; Mismatches 417;
      for large-scale prodn. of recombinant human
                                                                         28.0%;
62.1%;
                                                                       Query Match 28.0
Best Local Similarity 62.1
Matches 693; Conservative
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983 ATAAGGCCAACGAGTGGCTTGGCTATGACAATATCAAGAGCTTCAGTGTTAAGGCTCAGT
                  GCCTTAAGCAGAACAATTTTGGAGGTGCCATGATCTGGGCCCATTGACCTTGATGACTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene - used to develop products tissue remodeling disorders, e.g.
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SMITHKLINE BEECHAM CORP.
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This sequence encodes a novel human chitinase isolated from clone MO-13B. Chitinases are useful for treating or preventing fungal infection and as immunogens for generating antibodies which are used to purify, detect and quantify chitinases, e.g. for diagnosis of Gaucher's disease. The nucleic acid sequence of the chitinase is also useful as a probe to identify and isolate genomic DNA encoding chitinases or similar proteins, or cells expressing them or to generate transgenic ('knockout') rodents. It can also be used in hybridisation assays and to detect genetic attraitment in the chitinase gene related to disease. Agents that inhibit this protein may be useful in treatment of Gaucher's disease and rheumatoid arthritis, where overexpression of the protein can damage
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chitinase; human; fungal infection; immunogen; diagnosis; treatment; Gaucher's disease; transgenic; detection; hybridisation; antifungal; rheumatoid arthritis; overexpression; extracellular matrix; ss.
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/note= "from clone MO-13B"
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                      CAGGTCTGGCTCTTCTGCTGAATGCTCAGCTGGGGTCTGCCTACAATCTGATATGCTATT
                                            49 CAGGITICAIGGICCIGCIGAIGAICAICCAIGGGGCICIGCIGCAAAACIGGICIGCIACI
                                                                   TCACCAACTGGGCCCAGTATCGGCCAGGTCTGGGGGAGCTTCAAGCCTGATGACATTAACC
                                                                                                                CCTGCCTGTGTACTCACCTGATCTATGCCTTTGCTGGGATGCAGAACAATGAGATCACCA
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Mismatches 418;
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Conservative
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This is the nucleotide sequence of an allelic form of the human chitinase enzyme, which is capable of degrading Chitin (a linear homo polymer of beta-1,4-linked N-acetylglucosamine residues).

Chitinase fragments can be used to screen for proteins or other molecules that specifically bind to the chitin-binding domain of human chitinase or that modulate its activity. These compounds are useful for immunization, as well as for purifying chitinase, as well as for detection and quantification of chitinase. Polynucleotide fragments of the invention are useful as a source of probes and primers, and to express the proteins recombinantly. The chitinase fragments, when conjugated to antifungal compounds, are used to treat animals, especially humans, infected with chitin-containing parasites such as fungi. Fungal infection treated include candidiasis, aspergillosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sportoriotosis, and dermatopy toses.
Chitin can be degraded by the enzyme chitinase. Use of whole chitinase protein for treating infections, especially fungal infections, is problematic. In view of the increasing incidents of life-threatening fundal infection in e.g. immunocompromised individuals, there exists a
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                                                                                                                                                                                                                                            chitin; fungal infection; immunocompromised; AIDS; chemotherapy; organ transplant; parasite; chitin-binding; allele; vector; truncated protein; ds.
                                                                                                                                                                                                               MO-13B clone of human Chitinase, with noncoding 5'/3' regions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  fragments of human chitinase used to
                    1103 CIGGCICITICIGIGATCAGGGAAAATITCCICIGA 1138
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/product= Human_Chitinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "Mature peptide"
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                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
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/note= "Signal
                                                                                                                 AAZ21848 standard; DNA; 1656
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infections in animals
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clone pMO-13B;
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                                                            Gaps
         of the present invention provide this need.
compounds for treating fungal infection.
                                            Length 1656;
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                                          Score 425.2; DB 20; Length
Pred. No. 1.1e-118;
0; Mismatches 418; Indels
                         Sequence 1656 BP; 365 A; 497 C; 447 G; 347 T; 0 other;
                                         tch 27.9%;
al Similarity 62.0%;
692; Conservative
need for identifying new
chitin-binding fragments
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983 ATAAGGCCAACGAGTGGCTTGGCTATGACAATATCAAGAGCTTCAGTGTTAAGGCTCAGT 1042
                                                                                                                                                                         The present invention relates to a chitinase immunoglobulin (Ig) fusion product, comprising a human chitinase fused to at least a portion of an immunoglobulin chain. The fusion product is useful for treating fungal infections (mycoses) such as candidisals, aspergillosis, blastomycosis, coccidioidomycosis, prorecordis, protraines, paracoccidioidomycosis, histoplasmosis, mucormycosis, cryptococcosis, cromoplastomycosis, sportrichosis and dermatophytoses. The fusion protein is useful for reducing the amount of non-chitinase antifungal agent needed to exert an antifungal activity. The fusion protein is also useful for preparing a medicament for the prophylactic or therapeutic treatment of fungal infections. Chitinase immunoglobulin fusion product has unexpectedly improved serum half-life and formulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel chitinase immunoglobulin fusion product, useful for treating fungal infections and reducing the amount of a non-chitinase antifungal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; antifungal; chitinase; immunoglobulin; Ig; therapy; fungal infection; candidisals; aspergillosis; coccidioldomycosis; blastomycosis; paracoccidioldomycosis; histoplasmosis; cryptococcosis; chromoblastomycosis; sporotrichosis; mucormycosis; dermatophytoses;
                                                                                                                                     1043 GCCTTAAGCAGAACAATTTTGGAGGTGCCATGATCTGGGCCATTGACCTTGATGACTTCA
                                                                  1003 TCCGGGACAACCAGTGGGTGGGCTTTGATGATGTGGAGAGCTTCAAAACCAAGGTCAGCT
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/product= "Human mature chitinase from clone pMO-13B"
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                                                                                                                                                                                                                                                                        CTGGCTCTTTCTGTGATCAGGGAAAATTTCCTCTGA 1138
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human chitinase cDNA from clone pMO-13B.
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983 ATAAGGCCAACGAGTGGCTTGGCTATGACAATATCAAGAGCTTCAGTGTTAAGGCTCAGT GGCTTAAGCAGAACAATTTTGGAGGTGCCATGATCTGGGCCATTGACCTTGATGACTTCA

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                                                                                                                  CAGGTCTGCTCTTCTGCTGAATGCTCAGCTGGGGTCTGCCTACAATCTGATATGCTATT
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mer of
                homopolymer
                                                                      Length 1656;
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  from
    CDNA
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               ø
   s human chitinase
chitin which is a
                                                                    Score 425.2; DB 22;
Pred. No. 1.1e-118;
0; Mismatches 418; I
                                                Sequence 1656 BP; 365 A; 497 C; 447 G; 347 T; 0
             pMO-13B. Chitinase enzyme degrades chitin which beta-(1,4)-linked N-acetylglucosamine residues
    1.5
   sedneuce
                                                                      27.9%;
62.0%;
                                                                      Query Match 27.9
Best Local Similarity 62.0
Matches 692; Conservative
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Co-administering chitinase to improve the effectiveness of fungicidal drugs e.g. amphotericin B or itraconazole, useful for treating fungal infections e.g. candidiasis, coccidioidomycosis and blastomycosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence is that of cDNA clone MO-13B (ATCC 98078) encoding human chitinase (see ABB76292). The clone was isolated from a cDNA library prepared from peripheral blood monocyte-derived macrophages using a probe based on human chitinase clone MO-218 (see ABL5780). The 2 clones contain a single nucleotide difference in the coding region, causing amino acid position 81 of the mature protein to be either serine or glycine. Northern blots showed highest chitinase gene expression in lung and ovary tissues. Expression in lung is consistent with a protective role agalist pathogenic organisms that contain chitin. The invention provides human chitinase polynucleotides and polypeptides, and materials and
                                                                                                                                                                                                                Chitinase; enzyme; human; fungicide; antifungal; infection; candidiasis; aspergillosis; occidioidomycosis; histoplasmosis; cryptococcosis; paracoccidicidomycosis; histoplasmosis; cryptococcosis; chromoblastomycosis; sporotrichosis; mucormycosis; dermatophytosis;
              CTGGCTCTTTCTGTGATCAGGGAAAATTTCCTCTGA 1138
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                                                                                                                                                                                       Human chitinase cDNA clone MO-13B.
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Search completed: July 3, 2003, 05:03:20 Job time : 351.54 secs

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GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
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SUMMARIES

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Match	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	27.9	27.9	27.9	22.5	21.7	20.6	20.4	9.5	8.3	8.3	8.3	8.3	8.3	8.3	8.2	8.2	8.0	8.0
Score	426.8	426.8	426.8	426.8	426.8	426.8	426.8	426.8	426.8	425.2	425.2	425.2	343.2	330.8	314.8	311.6	140	126	126	126	126	126	126	124.4	124.4	121.4	121.4
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111111111111111111111111111111111111111		1 1 uence 1, Application ent No. 6200951 APPLICANT: Gray, Pat APPLICANT: Tjoelker, TITLE OF INVENTION: TITLE OF INVENTION: TOWNERS PONDESS COMPLESSEE: Marshal STREET: 233 SOUTH CITES: (OREGESEE: Marshal STREET: 233 SOUTH CITES: (OREGESEE: Marshal STREET: 234 SOUTH CITES: (OREGESEE: Marshal STREET: 1110045 COUNTRY: United St MEDIUM TYPE: Flopp COMPUTER: IBM PC COPERATING SYETEM: SOFTWARE: PATENTION DAPPINGENT APPLICATION NUMBER: FILING DATE: CORRETTING DATE: TELECOMMUNICATION INFORM NAME: RAD-LEAST TELECOMMUNICATION INFORM TOPOLOGY: linear MOLECULE TYPE: CDS LOCATION: 2.1399 FEATURE: NAME/KET: mat_Pept LOCATION: 65.1399 LOCATION: 65.1399	Match Local
2000 000 000 000 000 000 000 000 000 00		RESULT 1 Sequence 1, Application Patent No. 620091 APPLICANT: Tiochker, TILLE CAPT TIOCHKER. TILLE CAPT TIOCHKER. NUMBER OF SEQUENCES: CORRESPONDENCE ADDRESSEE: MATSHALL STREET: 233 SOUTH CITY: Chicago STATE: Illinois COUNTRY: United St ZATE: LILLOPE CONDUTER: EDDPE CONDUTER: EDDPE CONDUTER: EDDPE CONDUTER: TEMP COOPERATING SYETEM: SOFTWARE: PAPLICATION INDEER FILING DATE: CLASSIFICATION INDEER FEATURE: CONDUCTOR: CONDUTER: CLASSIFICATION INDEER FEATURE: CONDUCTOR: CONDUCTOR FEATURE: CONDUC	Query M Best Lo Matches
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IIILE OF INVENTION: Chitinase Materials and Methods
NUMBER OF SEQUENCES: 17
CORRESPONDENCE 17
CORRESPONDENCE ADDRESS:
ADDRESSE: Marshall, O'Toole, Gerstein, Murray &
STREET: 6300 Sears Tower, 233 South Wacker Drive
1103 CTGGCTCTTTCTGTGATCAGGGAAAATTTCCTCTGA 1138
                      1098 CCGCTTCTCCTGCAACCAGGCCGATACCCCTCA 1133
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Pred. No. 6.6e-123;
0; Mismatches 417;
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FILING DATE: 14-JUN-1996
ATTORNEY/AGENT INFORMATION:
NAME: Rin-Laures, Li-Hsien
REGISTRATION NUMBER: 33,547
REFERENCE/DOCKET NUMBER: 27866/33994
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
                                                                                                                                                                                                                                                                                                                                                                          STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
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APPLICATION NUMBER: US/08/877,599
FILING DATE:
CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patentin Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                             US-08-877-599-1
; Sequence 1, Application US/08877599
; Patent No. 6372212
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Best Local Similarity 62.1%;
Matches 693; Conservative
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INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
LENGTH: 1636 base pairs
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STRANDEDNESS: single
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LOCATION:
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; LOCATION:
US-08-877-599-1
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Pred. No. 6.6e-123;
0; Mismatches 417;
CURRENT FILING DATE: 1999-03-12
EARLIER APPLICATION NUMBER: 09/039,198
EARLIER FILING DATE: 1998-03-12
NUMBER OF SEQ ID NOS: 39
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 1
                                                                                                                                                                                                                            28.0%;
62.1%;
                                                                                                                                                                                                                                                    Conservative
                                                                                                        ORGANISM: Homo sapiens
                                                                                                                                                                     ; NAME/KEY: mat_peptide
; LOCATION: (65)..(1399)
US-09-267-574-1
                                                                                                                      FEATURE:
NAME/KEY: CDS
LOCATION: (2)..(1399)
FEATURE:
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693; C
                                                                                LENGTH: 1636
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Best Local S:
Matches 693;
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                                                                                           CCTTTCTGAGAAGTGGAGCCACTGAGGTCTGGGATGCCTCCCAAGAAGTGCCCTATGCCT
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APPLICANT: Tjoelker, Larry W.
TITLE OF INVENTION: CHITINASE CHITIN-BINDING FRAGMENTS
FILE REFERENCE: 27866/33407
CURRENT APPLICATION NUMBER: US/09/267,574
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Qy 803 GACACACTTCATCCTGAGAACCCCTTGATATGGAATTGGTGCCCTACCTGGTG 862	1043 GGCTTAAGCAACAATTTTGGAGGCCATGATCTGGGCCATTGACCTTGATGATCTCGATGATCTCGTTCATTGATGATCTCGTCATTGATGATCTCGTCATTGATGATCTCGTCATTGATGATGATCTCATTGATGATCATTCAT	Db 1098 CCGCTTCTCCTGCAACCAGGCCGATACCCCTCA 1133 RESULT 4 US-08-486-839-3 ; Sequence 3, Application US/08486839 ; Patent No. 5928928 ; GENERAL INFORMATION:	TITLE OF INVENTION: A human chitinase, its recombinant TITLE OF INVENTION: production, its use for decomposing chitin, its use TITLE OF INVENTION: in therapy or prophylaxis against infection diseases. NUMBER OF SEQUENCES: 16 CORRESPONDENCE ADDRESS: ADDRESSEE: Hoffmann & Baron STREET: 350 Jericho Tirnpike	W YORK United States of America Sa ADABLE FORM: IBM PC compatible SYSTEM: PC-DOS/MS-DOS	SOFTWARE: FACERLIN Release #1.0, Version #1.30 SOFTWARE: CURRENT APPLICATION DATA: FILING DATE: 07 - June - 1995 ATTORNEY/AGENT INFORMATION: NAME: Baron, Ronald J. REGISTRATION NUMBER: 29,281	50000E1	STRANDEDNESS: unknown TOPOLOGY: unknown HYPOTHETICAL: NO US-08-486-839-3	Query Match 28.0%; Score 426.8; DB 2; Length 1643; Best Local Similarity 62.1%; Pred. No. 6.6e-123; Matches 693; Conservative 0; Mismatches 417; Indels 6; Gaps 1; Oy 23 CAGGTCTGGCTCTTCTGCTGAATGCTCAGCTGGGGTCTGCCTACAATCTGATATGCTATT 82

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983 ATAAGGCCAACGAGTGGCTTGGCTATGACAATATCAAGAGCTTCAGTGTTAAGGCTCAGT 1042
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                                515 AGGAAGCCCAGACCTCAGGGAAGGAACGCCTTCTTGAGTGCAGCGGTTCCAGCTGGGC 574
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               GTCAGTATGGGTTTGATGGACTGGACTGGGAATACCCAGGCTCACGTGGGAGCC
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Hoffmann
STREET: 350 Jericho
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Production, Its Use For Decomposing Chitin, Its Us
Therapy or Prophylaxis Against Infection Diseases.
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1109 CCGCTTCTCCTGCAACCAGGCCGATACCCCCTCA 1144
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COMPOTER: IBM PC Compatible
OPERNIS SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Morriss, Robert C.
REGISTRATION NUMBER: 42,910
REFERENCE/DOCKET NUMBER: 294-32 DIV
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/151,011
FILING DATE: 10 - September - 1998
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                              United States of America
                                                                                                                                                                                                                             3: Hoffmann & Baron, LLP 6900 Jericho Turnpike
                                                                            Sequence 3, Application US/09151011
Patent No. 6057142
GENERAL INFORMATION:
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TITLE OF INVENTION: Ther
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
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STRANDEDNESS: unknown
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983 ATAAGGCCAACGAGTGGCTTGGCTATGACAATATCAAGAGCTTCAGTGTTAAGGCTCAGT 1042
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635 ACCTTATGGCCTACGACTTCCATGGCTCTTGGGAGAAGGTCACGGGACATAACAGCCCCC 694
                                                                                                                                                   683 TTTACAAATACCCTACTGAGACTGGTAGCAATGCCTACCTCAATGTGGATTATGTCATGA
                                                                                 695 TCTACAAGAGGCAAGAGAGAGTGGTGCTGCAGCCAGCCTCAACGTGGATGCTGCTGTGC
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US/08/486,839
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REGISTRATION UNBER: 29,281
REFERENCE/DOCKET NUMBER: 294-26
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 5, Application US/08486839
Patent No. 5928928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/486
FILING DATE: 07 - June - 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: 350 Jericho Turnpike CITY: Jericho
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (516) 822-3550
TELEFAX: (516) 822-3550
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
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TITLE OF INVENTION: A hITTLE OF INVENTION: pro-
TITLE OF INVENTION: in
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
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STRANDEDNESS: unkno
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       563 TITCCAACATCCAGGCTGGCTATGAGATCCCTGAACTTTCTAAGTACCTGGATTTCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 383 GTCAGTATGGGTTTGATGGACTGGACCTGGACTGGGAATACCCAGGCTCACGTGGGAGCC
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                                       Patentin Release #1.0, Version #1.30
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Pred. No. 6.6e-123;
0; Mismatches 417;
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REGISTRATION NUMBER: 29,281
REFERENCE/DOCKET NUMBER: 294-26
TELECOMMUNICATION INFORMATION:
TELEPAX: (516) 822-3550
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                APPLICATION NUMBER: U$/08/486,839
FILING DATE: 07-June-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                  APPLICATION NUMBER: US/09/343,623
                     PC-DOS/MS-DOS
IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28.0%;
62.1%;
                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 1643 base pairs
TYPE: nucleic acid
STRANDEDNESS: unknown
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                                                                            CURRENT APPLICATION DATA
                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 unknown
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                                                                                                                      FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                           SOFTWARE
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983 ATAAGGCCAACGAGTGGCTTGGCTATGACAATATCAAGAGCTTCAGTGTTAAGGCTCAGT 1042
                                                           GGCTTAAGCAGAACAATTTTGGAGGTGCCATGATCTGGGCCCATTGACCTTGATGACTTCA 1102
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Production, Its Use For Decomposing Chitin, Its Us
Therapy or Prophylaxis Against Infection Diseases
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                TCACCAACTGGGCCCCAGTATCGGCCCAGGTCTGGGGAGCTTCAAGCCTGATGACATTAACC
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                                                                                                                                              CTGGCTCTTTCTGTGATCAGGGAAAATTTCCTCTGA 1138
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6.8e-123;
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MEDIUM TYPE: Floppy disk
COMPUTER: TBM FC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 426.8;
Pred. No. 6.86
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REGISTRATION NUMBER: 42,910
REFERENCE/DOCKET NUMBER: 294-32 DIV
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/151,011
FILING DATE: 10 - September - 1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: United States of America 2IP: 11791
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6900 Jericho Turnpike
                                                                                                                                                                                                                                    Sequence 5, Application US/09151011
Patent No. 6057142
GENERAL INFORMATION:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE: (516) 822-3550
TELEFAX: (516) 822-3582
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 1713 base pairs
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al Similarity 62.1%;
693; Conservative (
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TITLE OF INVENTION: They
NUMBER OF SEQUENCE: 16
CORRESPONDENCE ADDRESS:
ADDRESSEE: HOFFmann 6
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Matches 69
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                                                                            Length 1713;
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                                                                        Score 426.8; DB 2;
Pred. No. 6.8e-123;
0; Mismatches 417;
                                                                        Query Match 28.0%;
Best Local Similarity 62.1%;
Matches 693; Conservative
unknown
           · MOLECULE TYPE:
HYPOTHETICAL:
                                           US-08-486-839-5
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NAME: Baron, Ronald J.
REGISTRATION NUMBER: 29,281
REFERENCE/DOCKET NUMBER: 29,281
TELECOMMUNICATION:
TELEPHONE: (516) 822-3550
                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/06,
FILING DATE: 07-June-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                            TELEFAX: (516) 822-3582
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                 1713 base pairs
                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                           unknown
                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                             nucleic acid
   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: unknown
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Matches 693; Conserv
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                                                                                                                                                                                                   FILING DATE:
                                                                          COUNTRY: U
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US-09-343-623-5
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                                                                                   323 CCATGGTTTCCACTTCTCAGAACCGCCAGACCTTCATTACCTCAGTCATCAAATTTCTGC
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llarity 62.1%; Pred. No. 6.8e-123;
Conservative 0; Mismatches 417;
                                                                                                     United States of America
                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/343,623
                                                                                                                                                                                                                                                                                                                                                           US/08/486,839
                                                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hoffmann & Baron
STREET: 350 Jericho Türnpike
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Pred, No. 2.1e-122;
0; Mismatches 418;
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REFERENCE/DOCKET NUMBER: 2786
TELECOMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
TELEFAX: (312) 474-648
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1656 base pairs
TYPE: NUCLEIC acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                  27.9%;
62.0%;
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                                                                                                                                                                                                            NAME/KEY:
LOCATION:
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NAME/KEY:
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   AGGAGGCTATTGAGAGCACAGGCCCAGACTGATGGTTACTGCTGCTGTAGCTGGTGGT
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APPLICANT: Gray, Patrick W.
APPLICANT: Tjoelker, Larry W.
TITLE OF INVENTION: CHITINASE CHITIN-BINDING FRAGMENTS
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Marshall, O'Toole, Gerstein, Murray, STREET: 233 South Wacker Drive/6300 Sears Tower CITY: Chlosgo STATE: Illinois
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ZIP: 60606-6402
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0.
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NAME: Rin-Laures, Li-Hsien
REGISTRATION NUMBER: 33,547
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
CLASSIFICATION: 435
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                                                          Length 1656,
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                                                            Score 425.2; DB 4;
Pred. No. 2.1e-122;
0; Mismatches 418;
                                                            27.9%;
62.0%;
                                                                                            Conservative
                                                                              Similarity
                ; LOCATION:
US-08-877-599-3
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                                                          GACGCTCCTTCACACTGGCCTCCTCATCAGACACCAGGGTGGGGGGCCCCAGGCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gerstein, Murray & Borun
South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 3, Application US/08877599
Patent No. 6372212
GENERAL INFORMATION:
APPLICANT: Gray, Patrick W.
TITLE OF INVENTION: Chitinase Materials and Methods
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                             CTGGCTCTTTCTGTGATCAGGGAAAATTTCCTCTGA 1138
                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPATION SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/877,599
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/663,618
FILING DATE: 14-JUN-1996
ATTORNEY/AGENT INFORMATION:
NAME: Rin-Laures, Li-Hsien
REGISTRATION NUMBER: 33,547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Chicago
STATE: Illinois
STRATE: Unlinois
COUNTY: Unlied States of America
ZIP: 60606-6402
COMPUTER READABLE FORM:
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6300 Sears Tower, 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 27
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS: LENGTH: 1656 base pairs TYPE: nucleic acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            312/474-6300
312/474-0448
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STREET: 63
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LOCATION:
FEATURE:
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US-08-877-599-3
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Db 469 CTGCCGTAGACAAGGAGCGCTTCACAACCCTGGTACAGGACTTGGCCAATGCCTTCCAGC 528 Qy 503 AGGAGGCTATTGAGAGCAACAGGCCCAGACTGATGGTTACTGCTGTGTGGGA 562	Qy 563 TITCCAACAICCAGGTGGCTAIGAGAICCCTGAACTITCTAAGTACCTGGAITTCAICC 622	OY 623 AIGTCAIGACAIAGACCICCAIGGCAGGGCIACACTGGGAGAAIAGTCCIC 682	Qy 683 TITACAAATACCTACTGAGACTGGTAGCAATGCCTACCTCAATGTGGATTATGTCATGA 742	OY 743 ACTATIGGAAGAACAAIGGAGCCCCAGCTGAGAAGCTCATIGTTGGATTCCCAGAGTATG 802	QY 803 GACACACTTCATCCTGAGAAACCCCTCTGATAATGGAATTGGTGCCCCTACCTCTGGTG 862	9y 863 AIGGCCCTGCIGCCCCTAIACCAGACAGGCTGGGTICTGGGCCTACTAIGAGAITIGCA 922	QY 923 CCTTTCTGAGAAGTGGAGCCACTGGGGATGCCTCCCAAGAAGTGCCTATGCCT 982	QY 983 ATAAGGCCAACGAGTGGCTTGGCTATGACAATATCAAGAGCTTCAGTGTTAAGGCTCAGT 1042	QY 1043 GGCTTAAGCAGAACAATTTTGGAGGTGCCATGATCTTGACCTTGACTTCA 1102	Qy	RESULT 13 US-08-694-915-1 ; Sequence 1, Application US/08694915	; Patent No. Swilsss ; GENERAL INFORMATION: ; APPLICANT: Adamou, Julie ; APPLICANT: Kirkpatrick, Robert	Rosenberg, Martin VENTION: HUMAN CARTII EQUENCES: 7 :NCE ADDRESS:	3 C E &	PE PE	atible DOS Version 1.5 ATA:	; APPLICATION NUMBER: US/08/694,915 ; FILING DATE:
1003 TCCGGGACAACCAGTGGGTGGCTTGATGTGGAGAGCTTCAAAACCAAGGTCAGCT 1043 GGCTTAAGCAGAACAATTTGGAGGTGCCATGATCTCGGCCATTGACGTGACTTCA [1043 GGCTTAAGCAGAACAATTTGGAGGTGCCATGATCTCGGCCATTGACGTGATTTCAA	Db 1063 ATCTGAAGCAGAAGGGACTGGGCGCCATGGTCTGGACTTAGATGACTTG 1122 Qy	SULT 12 -08-257-574-3	, 53 111 10	; APPLICANT: Gray, Patrick W.; APPLICANT: Tjoelker, Larry W.; TITLE OF INVENTION: CHITINASE CHITIN-BINDING FRAGMENTS; FILE REPRENCE: 27866/35407; GROWN WINDOWS AND WARRANT WAS A WARRANT WARRANT WAS A WARRANT WAS A WARRANT WAS A WARRANT WAS A WARRANT WARRANT WAS A WARRANT WAS A WARRANT WAS A WARRANT WAS A WARRANT WARRANT WAS A WARRANT WARRANT WARRANT WAS A WARRANT WARRANT WAS A WARRANT WAS A WARRANT WARRANT WARRANT WAS A WARRANT	CURRENT FILING DATE: 1999-03-12; EARLIER APPLICATION NUMBER: 09/039,198; EARLIER FILING DATE: 1998-03-12; MINUMED OF SEC TO A CONTROL OF SEC TO A	SEC ID NOS: PatentIn Vel 3	IIFE: DNA ORGANISM: FEATURE: NAME/KEY:		Maga	CTCTTCTGCTGAATGCTCAGCTGGGGTCTGCCTACAATCTGATATG 	OY 83 TCACCAACTGGGCCCAGTATCGGCCAGGTCTGGGGAGCTTCAAGCCTGATGACATTAACC 142	QY 143 CCTGCCTGTGTACTCACCTGATCTATGCCTTTGCTGGGATGCAGAACAATGAGATCACCA 202 	OY 203 CCATAGAATGAAGATGATTACTCTCTATAAAGCTTTCAATGACTTGAAAAACAGGAACA 262 	OY 263 GCAAACTGAAAACCTCCTGGCAATTGGAGGCTGGAACTTTGGAACTGCTCTTTCACTA 322	0y 323 CCATGGTTCCACTTCTCAGAACGGCCAGACCTTCATACCTCAGTCATCAAATTTCTGC 382	OY 383 GTCAGTATGGGTTTGATGGACTGGACTGGGAATACCCAGGCTCACGTGGAGCC 442.	OY 443 CICCICAGGACAAGCAICTICACIGCGGGAAAGGAAAIGGGGAAGCIITIGAGC 502

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                 CCCCTTATCACTGGCCACAACAGCCCTCTGAGCAAGGGGTGGCAGGACAGAGGCCAAGC 756
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                                                                                            757 TCCTACTACAATGTGGAATATGCTGTGGGGTACTGGATACATAAGGGAATGCCATCAGAG
                                                                                                                                                                                                         835 AATGGAATTGGTGCCCCTACCTCTGGTGATGGCCCTGCTGGCGCCCTATACCAGACAGGCT
                                                                                                                                                                                                                                                                                    895 GGGTTCTGGGCCCTACTATGAGATTTGCACCTTTCTGAGAAGTGGAGCCACTGAGGTCTGG
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APPLICANT: Kirkpatrick, Robert
APPLICANT: Rosenberg, Martin
ATTLE OF INVENTION: HUMAN CARTILEGE GP39-LIKE GENE
NUMBER OF SEQUENCES: 7
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APPLICATION NUMBER: US/OR/CTAC.
CTAC.
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Patent No. 5811535
GENERAL INFORMATION:
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FELECOMMUNICATION INFORMATION:
TELEPHONE: 610-270-5219
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STREET: 709 Swedeland
CITY: King of Prussia
STATE: PA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19406-2799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
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TELEX:
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                   697
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         --GGGCTACACTGGGGAGAATAGTCCTCTTTACAAATACCCTACTGAGACTGGTAGCAAT 714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 ATGCCCAAGCTACTTCTCGTCACAGGTCTGGCTCTTCTGCTGAATGCTCAGCTGGGGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCAAGCCTGATGACATTAACCCCTGCCTGTGTACTCACCTGATCTATGCCTGGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          232 ATCGAAAACAACAAGGTTATCATCAAGGACAAGAGTGAAGTGATGCTCTACCAGACCATC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    292 AACAGTCTCAAAACCAAGAATCCCAAACTGAAAATTCTCTTGTCCATTGGAGGGTACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301 TITGGAACTGCTCCTTTCACTACCATGGTTTCCACTTCTCAGAACCGCCAGACCTTCATT
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Pred. No. 7.2e-97;
0; Mismatches 458;
                                                                                                             ATG50017
                                                                                            34,344
                                                                                      REGISTRATION NUMBER: 34,344
REPERENCE/DOCKET NUMBER: AT
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-270-5219
TELEPAX: 610-270-5090
                                                                                                                                                                                                                                                                                                                                                                                                                                                  22.5%;
58.5%;
                                                    ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: 1 SEQUENCE CHARACTERISTICS: LENGTH: 1433 Base pairs TYPE: nucleic acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 58.5
Matches 685; Conservative
                                                                        Han, William T
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PRIOR APPLICATION DATA:
               APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                               TOPOLOGY: linea
MOLECULE TYPE: CE
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                      ; ANTI-SENSE: NO
; FRAGMENT TYPE:
; ORIGINAL SOURCE:
US-08-694-915-1
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Best Local
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1138 GATGATGTGAGGTTGTGGAGGACCAAGGTTCATAAAGAATTTAAACTGGGAGGA 1197
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GENERAL INFORMATION:
APPLICANT: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
TITLE OF INVENTION: ASSAY FOR YKL-40 AS A MARKER FOR
TITLE OF INVENTION: DEGRADATION OF MAMMALIAN CONNECTIVE TISSUE MATRICES
NUMBER OF SEQUENCES: 4
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      889 CAGGCTGGGGTTCTGGGCCTACTATGAGATTTGCACCTTTCTGAGAAGTGGAGCCACTGAG
                                                                                                            GACAATATCAAGAGCTTCAGTGTTAAGGCTCAGTGGCTTAAGCAGAACAATTTTGGAGGT
                                              1021 TCTTCAGGCTTCCTGGCCTATTATGAGATCTGCCAGTTCCTGAAA----GGAGCCAAGATC
                                                                                       949 GTCTGGGATGCCTCCCAAGAAGTGCCCTATGCCTATAAGGCCAACGAGTGGCTTGGCTAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/07754 FILING DATE: 08-JUL-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: SPENSLEY HORN JUBAS & LUBITZ
STREET: 1880 CENTURY PARK EAST, FIFTH FLOOR
CITY: LOS ANGELES
STATE: CALIFORNIA
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 314.8; DB 5
Pred. No. 5.7e-88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE DOCKET NUMBER: FD TELECOMMUNICATION INFORMATION: TELEPHONE: 619/455-5100
TELEFAX: 619/455-5110
INFORMATION FOR SEQ ID NO: 4: SEQUENCE CHARACTERISTICS: LENGTH: 1681 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: HOWELLS, STACY L.
REGISTRATION NUMBER: 34,842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA (genomic)
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58.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 90067
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: CDS
LOCATION: 135..1681
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IMMEDIATE SOURCE:
CLONE: YKL-40
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PCT-US94-07754-4
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FCT-US94-07754-4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             439 TACCTGTTTGGTTCCAAAGGGTTCCACCCTATGGTGGATTCTTCTACATCACGCTTGGAA 498
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       175 GCTGGGATGCAGAACAATGAGATCACCACATAGAATGGAATGATGTTACTCTCTATAAA 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      235 GCTTTCAATGACTTGAAAAACAGGAACAGCAAACTGAAAACCCTCCTGGCAATTGGAGGC 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        295 TGGAACTTTGGAACTGCTCCTTTCACTACCATGGTTTCCACTTCTCAGAACCGCCAGACC 354
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                                                                                                                                                                                                                                                                                                                 27;
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                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                             0; Mismatches 432;
                                                                                                                                                                                                                                                                        DB 1;
                                                                                                                                                                                                                                                                    Score 330.8; DB
Pred. No. 5.5e-93
                                                                                                                                                                                                                                                                    21.7%;
58.9%;
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1526 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                       Best Local Similarity 58.9
Matches 657; Conservative
                                                                                                                         MOLECULE TYPE: CDNA HYPOTHETICAL: NO
                                                                                                                                                                ANTI-SENSE: NO
                                                                                                                                                                                   FRAGMENT TYPE:
ORIGINAL SOURCE:
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CGTCAGTATGGGTTTGATGGACTGGACTGGGAATACCCAGGCTCACGTGGGAGC 441
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                                                                                                     ACCATAGAATGGAATGATGTTACTCTCTATAAAGCTTTCAATGACTTGAAAAACAGGAAC 261
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                                                   CCCTGCCTGTGTACTCACCTGATCTATGCCTTTGCTGGGATGCAGAACAATGAGATCACC
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Search completed: July 3, 2003, 08:43:20 Job time : 75.5873 secs

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GenCore version 5.1.6

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OM nucleic - nucleic search, using sw model

Run on: July 3, 2003, 05:03:26; Search time 267.722 Seconds

(**Ithout alignments)

**Reflect score: 1525

Sequence: 1525

Scoring table: Integracagetacttctcgt......taaaattggtagccaaaaca 1525

Scoring table: Integracagetacttctcgt.....

Searched: 1085931 seqs, 780495707 residues

Total number of hits satisfying chosen parameters: 2171862

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post_processing: Minimum Match 0%

Listing first 45 summaries
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1: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
2: /cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
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14: /cgn2_6/ptodata/1/pubpna/US00_NEW_PUB.seq:*

Published_Applications_NA:*

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Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	Sequence 3, Appli	Sequence 2, Appli	Sequence 14. Appl	Sequence 402, App	Sequence 678, App	Sequence 44. Appl	Sequence 4, Appli	Sequence 4, Appli	Sequence 8, Appli		Sequence 13050, A	Sequence 7364, Ap	Sequence 3057, Ap	Sequence 3072, Ap	Sequence 265, App	Sequence 14919, A	Sequence 5721, Ap	Sequence 14460. A	Sequence 20, Appl	
QI	US-10-004-219B-3	US-10-004-219B-2	US-10-202-436A-14	US-09-822-830A-402	US-09-960-352-678	US-10-097-340-44	US-09-215-077A-4	US-09-262-213A-4	US-09-765-231A-8	US-09-960-352-2589	US-09-960-352-13050	US-09-960-352-7364	US-09-960-352-3057	US-09-960-352-3072	US-09-960-352-265	US-09-960-352-14919	US-09-960-352-5721	US-09-960-352-14460	US-10-218-743-20	
	6	6	6	10	10	σ	10	10	10	10	10	10	10	10	10	10	10	10	σ	
% Query Match Length DB	1525	1625	1038	1391	449	1925	1681	1681	1474	415	414	410	424	418	399	411	384	398	1608	
Query Match	100.0	68.3	28.2	21.5	21.5	21.0	20.4	20.4	17.0	10.0	8.6	9.7	9.7	9.7	6.8	8.8	8.4	8.2	8.0	
Score	1525	1041	430	327.6	327.2	319.6	311.6	311.6	259.8	152.2	149.6	148	148	147.4	136.2	134.8	127.8	124.6	121.4	
Result No.	П	7	m	4	5	9	7	80	σ	10	11	12	13	14	c 15	16	c 17	c 18	19	

Sequence 22, Appl Sequence 17, Appl Sequence 19, Appl Sequence 16, Appl Sequence 40, Appl Sequence 41, Appl Sequence 37, Appl Sequence 31, Appl Sequence 31, Appl Sequence 31, Appl Sequence 35, Appl Sequence 5770, Appl Sequence 551, Appl Sequence 1180, Appl Sequence 1181, Appl Sequence 4053, Appl Sequence 4053, Appl Sequence 4058, Appl Sequence	agains agains con dis con dis nino ac mouse acuse	Length 1525; Indels 0; Gaps 0; TGAATGCTCAGCTGGGGTCT 60 TGAATGCTCAGCTGGGGTCT 60 ATCGGCCAGGTCTGGGGTCT 61
US-10-218-743-22 US-10-218-743-17 US-10-218-743-19 US-10-218-74-14 US-10-218-743-40 US-10-218-743-42 US-10-218-743-42 US-10-218-743-42 US-10-218-743-34 US-10-218-743-34 US-10-218-743-34 US-10-218-743-34 US-10-218-743-34 US-10-918-995-35463 US-09-918-995-35463 US-09-918-995-35463 US-09-918-995-35463 US-09-960-352-1189 US-09-960-352-1189 US-09-960-352-10642 US-09-960-352-10642 US-09-960-352-10642 US-09-960-352-10642 US-09-960-352-10642 US-09-960-352-10642 US-09-960-352-10642 US-09-960-352-10642 US-09-960-352-10642 US-09-960-352-10642 US-09-960-352-10642 US-09-960-352-10642	LIGNMENTS Enapy or prist involved of the combined D quence and deduced and deduced and deduced and deduced and deduced and deduced	100.0%; Score 1525; DB 9; Length 1525; imilarity 100.0%; Pred: No. 0; Conservative 0; Mismatches 0; Indels 0; Gaps Arggccaagcratcracacacacacacacacacacacacacacacacac
16665 9 11665 9 11655 9 11752 9 11652 9 11652 9 11652 9 11652 9 11652 9 11652 9 11652 9 11652 9 1162 10 1162 10 1163 10 1163 10 1164 1	US/10 87414 nnes 6 ammal 3 1Cb 3 1Cb 001-1 4 2.1 2.1 2.1 2.1 4 2.1 2.1 A sequen cript ase c	100.0% 100.0% vative CTACTICTC CTACTICTC
ααααακννννο φουυυυυνυνυνυ 444οοοοσ4444444404 ω ω υσημοροσού ψ	WULT 1 10-004-219B-3 sequence 3, Application with licetion No. US200300 seneral information APPLICANT: Macrozyme TITLE OF INVENTION: AI TITLE OF INVENTION: AI TITLE OF INVENTION: AI TITLE OF INVENTION: AI CURRENT APPLICATION NUM CURRENT FILING DAFE: 2 SOFTWARE: PatentIN Ver. SEQ ID NO 3 LENGTH: 15-25 TYPE: DNA ORGANISM: Artificial S FEATURE: OTHER INFORMATION: Seq FEATURE: OTHER INFORMATION: Seq FEATURE: OTHER INFORMATION: CDN FEATURE: OTHER INFORMATION: CDN FEATURE: CORRIGE: NAME/KEY: CDS LOCATION: (1)(1419)	Similarity 15; Conservante Arggecaage Arggecaage Cargecaage Gecracaare
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0y 1201 TCCGAGCCAGTGACTACTCCTCCAGGAAGTGGGGGTGGAAGCTCCGGAGGAAGC 1260	QY 1381 CTTGTTTTGATACCAGCTGTAATTGCTGCAACTGGCCATGAACCTAATGCCATTCTTCC 1440 DD 1381 CTTGTTTTGATACCAGCTGTAATTGCTGCAACTGGCCATGATGCCATTCTTCC 1440 QY 1441 AGAAATTTCTGCACTCTCTTACTCCTCACCAAAGTAACTATCTTCCCTTTAACCTTA 1500 DD 1441 AGAAATTTCTGCACTCTCTTTACTCCTCACCAAAGTAACTATCTCCCTTTAACCTTA 1500 QY 1501 TGCAATAAAATTGGTAGCCAAAACA 1525 DD 1501 TGCAATAAAATTGGTAGCCAAAACA 1525 DD 1501 TGCAATAAAAATTGGTAGCCAAAACA 1525	RESULT 2 US-10-004-219B-2 US-10-004-219B-2 Squence 2, Application US/10004219B Squence 2, Publication No. US20030087414A1 Publication No. US20030087414A1 Squence 2, Application No. US20030087414A1 Theory Macrosyme APPLICANT: Macrosyme APPLICANT: Macrosyme TITLE OF INVENTION: A mammalian mucinase, its recombinant production, and TITLE OF INVENTION: Which mucus is involved or infection diseases in TITLE OF INVENTION: Which mucus is involved or infection diseases FILE REFERENCE: 2183-5136US CURRENT APPLICATION NUMBER: US210/004,219B	Š,	Query Match 68.3%; Score 1041; DB 9; Length 1625; Best Local Similarity 83.4%; Pred. No. 0; Alsimilarity 9; Gaps 1; QY 1 ATGGCCAAGCTACTCTCGTCACAGGTCTGCTCTTCTCGTCAATGCGGGTCT 60 111111111111111111111111111111111111
Db 61 GCCTACAATCTGATATCACCAACTGGGCCCAGTATCGGCCAGGTCTGGGGAGC 120 121 TTCAAGCCTGATGATAACCCCTGCTGTGTACTCACCTGATGCTTTGCTGGG 180 121 TTCAAGCCTGATGACATTAACCCCTGCTGTGTACTCACTGATGCTTTGCTGGG 180 121 TTCAAGCCTGATGATTAACCCTGCTGTGTACTCTATGCTGGT 180 181 ATGCAGAACAATGAGATCACCATAGAATGAATGAATGAAT	301 TITGGAACTGCTCTITCACTACCATGGTTTCCACTTCTCAGAACCGCCAGACCTTCATT 301 TITGGAACTGCTCCTTTCACTACCATGGTTTCCACTTCTCAGAACCGCCAGACCTTCATT 301 TITGGAACTGCTCTTTCACTACCATGGTTTCCACTTCTCCAGACCGCCAGACCTTCATT 301 ACCTCAGTCATCAAATTTCTGCGTATGGGTTTGATGGACTGGACTGGACTGGAACTTCATT 361 ACCTCAGTCATCAAATTTCTGCGTCAGTATGGGTTTGATGGACTGGACTGGGAACTGGACTGGGAACTGGAACTGATGATGATGATTTTTTTT	QY 481 GAAATGCGTGAAGCTTTTGAGCAGGAGCCTATTGAGACAGGCCCAGACTGATGGTT 540 Db 481 GAAATGCGTGAAGCTTTTGAGCAGGGCTATTGAGAGCAACAGGCCCAGACTGATGGTT 540 Ch 481 GAATGCGTGTAAGCTTTTGAGAGCTATTGAGAGCAACAGGCCCAGATGGTT 540 QY 541 ACTGCTGCTGTAGCTGGTGATTTCCAACATCCAGGCTGGCT	GGGAGAATAGTCCTCTTTACAATACCCTACTGAGACTGGTAGCAATACGGAGACTGGTAGCAATACGGAGACTGAGACTGGTAGCCTGAGAGACTGTAGAGACTGTAGAGACTGAGAGACTGAGAGACTGAGAGACTGAGAGACTGAGAGACTGAGAGACTGAGAGACTGAGAGACTGAGAGACTGAGAGACTCCTGAGAGACTCCTGAGAGACTCCTGAGAGACTCCTGAGAGACTCCTGATAGAGTCCCTTCTTTTTTTT	Oy 961 TCCCAAGAAGTGCCTATGAGTGCAACGAGTGGCTTGGCT

\(\frac{1}{2} \)	181 ATGCAGAACAATGAGATCACCACCATAGAATGGAATGTTACTCTCTATAAAGCTTTC 240 	QY 125Z GGAGGAAGCTCTGGAGGCAGTGGATTCTGTGCCACAAAGCAGATGGCCTTACCCTGTG 1311
oy.	ATGACTIGAAAAACAGGAACAGCAAACCCTCCTGGCAATTGGAGGCTGGAAC	Qy 1312 GCAGATGACAGAAATGCTTTTTGGCAGTGCATCAATGGAATCACATACCAGCAGCAGTTGT 1371
qq	344 AATGGCCTGAAAAATAAGAACAGCCAGCTGAAAACTCTCCTGGCCATTGGAGGCTGGAAC 403	1372
oy Og	301 TITGGAACIGCICCITICACTACCAIGITICCACTICICAGAACCGCCAGACCTICATI 360 	1484
රු පි	361 ACCTCAGICATCAAATTTCTGCGTCAGTATGGGTTTGATGGACTGGACTGGGACTGGGAA 420 	RESULT 3 US-10-202-436A-14 ; Sequence 14, Application US/10202436A
Oy Op	421 TACCCAGGTCACGTGGGAGCCCTCCTCAGGACAAGCATCTCTTCACTGTCTCTGGTGAAG 480	; Publication No. US20030049261A1 ; GENERAL INFORMATION: ; APPLICANT: ELIAS, JACK A ; APPLICANT: ZHU, ZHOU
oy Op	481 GAAATGCGTGAAGCTTTTGAGCAGGAGCTATTGAGAGCAACAGGCCCAGACTGATGGTT 540 	
oy Op	541 ACTGCTGTAGCTGGGGATTTCCAACATCCAGGCTGGCTATGAGATCCCTGAACTT 600 	; CURRENT FILING DATE: 2002-10-17 ; PRIOR APPLICATION WUMBER: U.S. 60/307,432 ; PRIOR FILING DATE: 2001-07-24 ; NUMBER OF SEQ ID NOS: 14
o, d	601 TCTAAGTACCTGGATTTCATCCATGTCATGACATATGACCTCCATGGCTCCTGGGAGGGC 660	S
δ _γ dα	661 TACACTGGGGAGAATAGTCCTCTTTACAAATACCCTACTGAGACTGGTAGCAATGCCTAC 720 	MCase sens
o og	721 CTCAATGTGGATTATGTCATGAACTATTGGAAGAACAATGGAGCCCCAGCTGAGAAGCTC 780 	Query Match 28.2%; Score 430; DB 9; Length 1038; Best Local Similarity 76.5%; Pred. No. 7.8e-132; Matches 598; Conservative 0; Mismatches 165; Indels, 19; Gaps 5;
oy op	781 ATIGITGGATTCCCAGAGTATGGACACCTTCATCCTGAGAAACCCCTTGATAATGGA 840 	Qy 666 IGGGGAGAATAGICCTCTITACAAATACCCTACTGGAGCTGGTAGCAATGCCTACCTCAA 725
Oy Op	841 ATTGGTGCCCCTACCTCTGGTGATGGCCCTGCTGGCGCCTATACCAGACAGGCTGGGTTC 900	Qy 726 TGTGGATTATGTCATGAACTATTGGAAGAACAATGGAGCCCCAGCTGAGAAGCTCATTGT 785
oy Op	901 TGGCCTACTATGGATTTGCACCTTTCTGAGAAGTGGAGCCACTGAGGTCTGGGATGCC 960 	Qy 786 TGGATTCCCAGAGTATGGACACCTTCATCCTGAGAAACCCCTCTGATAATGGAATTGG 845
Qy	961 TCCCAAGAAGTGCCCTATGCCTATAAGGCCAACGAGTGGCTTGGCTATGACAATATCAAG 1020 	Qy 846 TGCCCCTACCTCTGGTGATGGCCCTGCTGCGCCCTATACCAGACAGGTGGGTTCTGGGC 905
Oy Op	1021 AGCTTCAGTGTTAAGGCTCAGTGGCTTAAGCAGAACAATTTTGGAGGTGCCATGATCTGG 1080 	Qy 906 CTACTATGAGATTTGCACCTTTCTGAGAAGTGGAGCCACTGAGGTCTGGGATGCCTCCCA 965
oy Oy	1081 GCCATTGACCTTGACTTCACTGGCTCTTTCTGTGATCAGGGAAAATTTCCTCTGACT 1140 	QY 966 AGAAGIGCCTATGCCTATAAGGCCAACGAGGGTTGGCTATGACAATATCAAGAGCTT 1025
Oy Dp	1141 TCTACTTTGAACAAAGCCCTTGGCAFATCCACTGAAGGTTGCACAGCTCCTGACGTGCT 1200 	QY 1026 CAGIGITAAGGCICAGIGGCITAAGCAGAACAATITIGGAGGIGCCAIGAICIGGGCCAI 1085
Oy op	1201 TCCGAGCCAGTGACTACTCCTCCAGGAAGTGGGAGTGGGGGTGGAAGCTCC 1251 	QY 1086 TGACCTTGATGACTTCACTGGCTCTTTCTGTGATCAGGGAAAATTTCCTCTGACTTCTAC 1145

Qy 203 CCATAGAATGGAATGATGTTACTCTCTATAAAGCTTTCAATGACTTGAAAACAGGAACA 262	215 TCAAGGACAAGAGGAGGATGCTCTACCAGACCATCAACAGTCTCAAAACCAAGAATC	Qy 263 GCAAACTGGAAAACCTCCTGGCAATTGGAGGCTGGAACTTTGGAACTGCTCCTTTCACTA 322	QY 323 CCATGGTTCCACTTCTCAGAACCGCCAGACCTTCATTACCTCAGTCATCAATTTCTGC 382	QY 383 GTCAGTATGGGTTTGATGGACTGGACTGGGAATACCCAGGCTCACGTGGGAGCC 442	QY 443 CTCCTCAGGACAAGCATCTCTCTGTGTGCTGGTGAAGGAAATGCGTGAAGCTTTTGAGC 502	OY 503 AGGAGGCTATTGAGAGCAACAGGCCCAGACTGATGGTTACTGCTGCTGTGGGGGG 562	QY 563 TITCCAACATCCAGGCTGGCTATGAGATCCCTGAACTITCTAAGTACCTGGATTTCATCC 622	OY 623 ATGTCATGACATATGACCTCCATGGGAGGGCTACACTGGGGAGAATA 676	OY 677 GTCCTCTTACAATACCCTACTGAGACTGGTAGCAATGCCTCAATGTGGTTATG 736	OY 737 TCATGAACTATTGGAAGAACAATGGAGCCCCAGCTGAGAGCTCATTGTTGGATTCCAG 796 1	OY 797 AGTATGGACACCTTCATCCTGAGAAACCCCTCTGATAATGGAATTGGTGCCCCTACT 856	QY 857 CTGGTGATGGCCCTGCTGCGCCTATACCAGACAGGTTGGGTTCTGGGCCTACTATGAGA 916	OY 917 TTTGCACCTTTCTGAGAAGTGGAGCCACTGAGGTCTGGGATGCCTCCCAAGAAGTGCCT 976 1 1 1 1 1 1 1 1 1	OY 977 ATGCCTATAAGGCCAACGAGGGTTGGCTATGACAATATCAAGAGCTTCAGTGTTAAGG 1036	1037 CTCAGTGGCTTAAGCAGAACAATTTTGGAGGTGCCATGATCTGGGCCATTGACCTTGATG	Oy 1097 ACTTCACTGGCTCTTTCTGTGATCAGGGAAATTCCTCTGACTTTTGAACAAG 1156	RESULT 5 US-09-960-352-678 ; Sequence 678, Application US/09960352 ; Patent No. US20020137139Al
Qy 1146 TITGAACAAAGCCCTTGGCATATCCACTGAAGGTTGCACAGCTCCTGACGTGCCTTCCGA 1205	481 CCTGAAGAAGGCCCTCGGGCTGCAGAGTGCAAGTTGCACGGCTCCAGCTCAGCCCATTGA	QY 1206 GCCAGTGACTACTCCTCCAGGAAGTGGGGGTGGAAGCTCCGGAGG 1256	QY 1257 AAGCTCTGGAGGAGTGGATTCTGTGCCGACAAAGCAGATGGCCTCTACCCTG 1309	Qy 1310 IGGCAGAIGACAGAAATGCTITITGGCAGTGCATCAATGGAATCACATACCAGCAGCA 1367 Db 661 CAAATTACCAGAAGATGCCTTCTGGGCACTGCGTGAATGGAGTCACGTACCAGGCAGAAC 720	Qy 1368 TTGTCAAGCAGGCTTGT-TTTGATACCAGCTGTAATTGCTGCAACTGGCCATGAACCT 1426	Qy 1427 AA 1428 Db 781 GA 782		2, Application US20020142952A1 ORMATION: Genetics Inst		# APPLICANT: Howes, Steven H. # APPLICANT: Gulukota, Ramajakar # APPLICANT: Graham, James R. # APPLICANT: Graham, James R. # APPLICANT: Grapham, Dor variet control of the	FILE REFERENCE: GIN 6402 CURRENT APPLICATION NUMBER: US/09/822,830A CURRENT FILING DATE: 2001-03-29 PDIOS ADDITIONATION FOR CONTROL OF CONTR	FALOR FILLING DATE: 2000-04-06; NUMBER OF SEQ ID NOS: 631 SOFTWARE: Patentin Ver. 2.0		NAME/KEY: misc_feature; NCATION: 1353_feature; CCATION: 1353_feature; OTHER INFORMATION: n=a,c,g, or t	Query Match 21.5%; Score 327.6; DB 10; Length 1391; Best Local Similarity 58.1%; Pred. No. 1.1e-97; Matches 667; Conservative 0; Mismatches 454; Indels 27; Gaps 4;	Qy 23 CAGGTCTGGCTGATGCTCAGCTGGGGTCTGCCTACAATCTGATATGCTATT 82 b	

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Ovarian Cancer
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          262 AGCAAACTGAAAACCCTCCTGGCAATTGGAGGCTGGAACTTTGGAACTGCTCCTTTCACT 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGTCAGTATGGGTTTGATGGACTGGACCTGGACTGGGAATACCCAGGCTCACGTGGGAGC 441
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32 ACCATGGTTTCCACTTCTCAGAACCGCCAGACCTTCATTACCTCAGTCATCAAATTTCTG
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                                                and Proteins For 1, and Therapy of
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Pred. No. 6.2e-95;
0; Mismatches 434;
                                              Molecules an
Prevention,
                                                                                            CURRENT APPLICATION NUMBER: US/10/097,340
CURRENT FILING DATE: 2002-03-14
PRIOR PLICATION NUMBER: 60/26,025
PRIOR FILING DATE: 2001-03-14
PRIOR FILING DATE: 2001-03-14
PRIOR FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 60/276,026
PRIOR APPLICATION NUMBER: 60/324,967
PRIOR FILING DATE: 2001-03-14
PRIOR PLING DATE: 2001-03-14
PRIOR PLING DATE: 2001-09-26
PRIOR PELING DATE: 2001-09-26
PRIOR PELING DATE: 2001-09-10
PRIOR PELING DATE: 2001-09-10
PRIOR FILING DATE: 2001-09-26
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SOFTWARE: FastSEQ for Windows Version 4.0
                                              TITLE OF INVENTION: Nucleic Acid TITLE OF INVENTION: Assessment,
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ilarity 58.4%;
Conservative
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                                                                                   FILE REFERENCE: MRI-030
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LENGTH: 1925
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US-10-097-340-44
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APPLICANT: Warren, Wesley C.
APPLICANT: Tao. Nengbing
APPLICANT: Tao. Nengbing
APPLICANT: Byat., John C.
TITLE OF INVENTION: NUCLEIC ACID AND OTHER MOLECULES ASSOCIATED WITH LACTATION AND
TITLE OF INVENTION: MUSCLE AND FAT DEPOSITION
TITLE OF INVENTION NUMBER: US/09/960,352
CURRENT APPLICATION NUMBER: US/09/960,352
CURRENT FILING DATE: 2001-09-24
SEQ ID NOS: 15112
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                                                                                                                                                                                                                                                                                                                          DB 10; Length 449;
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; ORGANISM: Bos taurus
; OTHER INFORMATION: Clone ID: 03-LIB34-081-Q1-E1-A11
US-09-960-352-678
                                                                                                                                                                                                                                                                                                                   Query Match
21.5%; Score 327.2; DB 10;
Best Local Similarity 84.4%; Pred. No. 6.8e-98;
Matches 368; Conservative 0; Mismatches 68;
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APPLICANT: MADJULA GANNAVARAPU
APPLICANT: Sebastian HORRSCH
APPLICANT: Shubhangi KAMATKAR
APPLICANT: Steve G. KOVATS
APPLICANT: Rachel E. MEYERS
APPLICANT: Michael MORRISEY
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Robert C. BAST, Jr.
Karen LU
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	Οŷ	qq	Oy Og	Oy	qq	QY Db	Qy	Qy Db	QY	Qy Db	Oy Db	QY	Qy	QY	QY Db	Qy	Qy Db	Qy	QY	Qy Db
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	OY 622 CATGICATGACATATGACCICCATGGCAGGGGGAGGGGTACACTGGGGAGAATAGICCT 681	cartitcargas	QY 682 CITTACAAATACCTACTGAGACTGGTAGCAATGCCTACCTCAATGTGGATTATGTCATG 741	AACTATTGGAAGAACAATGGAGCCCCAGCTGAGAAGCTCATTGTTGGATTCCCAGAGTAT	Db 850 GGGTACATGTTGAGGCTGGGGGCTCCTGCCAGTAAGCTGGTGATGGGCATCCCCACCTTC 909	QY 802 GGACACCTICATCAGAAACCCTCTGATAATGGAATTGGTGCCCCTACCTCTGGT 861	QY 862 GATGGCCTGCTGCGCCTATACCAGACAGCTGGGTTCTGGGCCTACTATGAGATTTGC 921	QY 922 ACCTTTCTGAGAAGTGGAGCCACTGAGGATGGCTCCCAAGAAGTGCCCTATGCC 981	OY 982 TATAAGGCCAACGAGGCTTGGCTATGACAATATCAAGAGCTTCAGTGTTAAGGCTCAG 1041	QY 1042 TGGCTTAAGCAGAACTTTGGAGGTGCCATGATCTGGGCCATTGACCTTC 1101	Qy 1102 ACTGGCTCTTTCTGTGATCAGG 1123 Db 1204 CAGGGCTCTTCTGCGGCCAGG 1225	RESULT 7 US-09-215-077A-4	<pre>; Sequence 4, Application US/09215077A ; Patent No. US/0020031793A1 ; GENERAL INFORMATION: ; APPLICANT: PRICE, PAUL A.</pre>	; APPLICANT: JOHANSEN, JULIA S. ; TITLE OF INVENTION: ASSAY FOR YKL-40 AS A MARKER FOR DEGRADATION OF ; TITLE OF INVENTION: MAMMALIAN CONNECTIVE TISSUE MATRICES ; FILE REFERENCE: 407T-895411US	NT APPLICATION NUMBER NT FILING DATE: 1998 APPLICATION NUMBER: FILING DATE: 1996-04		; SEA IN 00 4; INSTANT SEQUENCE ORGANISM: Artificial Sequence	FEATURE INFORMATION: Description of Artificial Sequence: CDNA nucleotide; OTHER INFORMATION: sequence for the coding region of the gene for ; OTHER INFORMATION: YKL-40.	20ery Match 20.4%; Score 311.6; DB 10; Length 1681; Best Local Similarity 58.0%; Pred. No. 2.6e-92;	Matches 639; Conservative 0; Mismatches 439; Indels 24; Gaps 4; Qy 22 ACAGGTCTGCTGTGAATGCTCAGTGGGGTCTGCCTACAATCTGATATGCTAT 81

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nucleic acids, polypeptides
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675 AGCATCATGACCTACGATTTTCATGCGCCTGGCGTGGGACCACAGGCCATCACAGTCCC 734
                                                                                                                          912 CCGGGAATTCCAGGCCGGTTCACCAAGGAGCAGGACCCTTGCCTACTATGAGATCTGT
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                                   CTTTACAAATACCCTACTGAGACTGGTAGCAATGCCTACCTCAATGTGGATTATGTCATG
                                                                                                       742 AACTATTGGAAGAACAATGGAGCCCCAGCTGAGAAGCTCATTGTTGGATTCCCAGAGTAT
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Pred. No. 4e-75;
0; Mismatches 437; Indels
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APPLICANT: Phippard, Deborah
APPLICANT: Vasanthakamur, Geetha
APPLICANT: Dotson, Stanton
APPLICANT: Ma, Xiao-Jun
APPLICANT: Ma, Xiao-Jun
APPLICANT: We, Viao-Jun
APPLICANT: Osteoarthritis tissue-derived
TITLE OF INVENTION: Osetooarthritis delis
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CURRENT APPLICATION NUMBER: US/09/765,231A
CURRENT FILING DATE: 2001-01-18
NUMBER OF SEQ ID NOS: 82
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Best Local Similarity 58.2%;
Matches 654; Conservative (
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US-09-765-231A-8
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                                                                                        GENERAL INCOMENTION.

GENERAL INCOMENTATION.

APPLICANT: JOHANSEN, JULIA

TITLE OF INVENTION: ASSAY FOR YKL-40 AS A MARKER FOR DECRADATION OF

TITLE OF INVENTION: AMANALIAN CONECTIVE TISSUE MATRICES

FILE REFERENCE: 4077-8954120S

CURRENT APPLICATION NUMBER: US 08/09/262,213A

PRIOR APPLICATION NUMBER: US 08/089,989

PRIOR RILING DATE: 1993-07-09

PRIOR PELING DATE: 1994-07-08

PRIOR PELING DATE: 1994-07-08

PRIOR FILING DATE: 1996-04-17

NUMBER OF SEQ ID NOS: 4

SOFTWARE: PALENTIN VERSION 3.0

SOFTWARE: PALENTIN VERSION 3.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             322 ACCATGGTTTCCACTTCTCAGAACGGCCAGACCTTCATTACCTCAGTCATCAAATTTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCATAGAATGGAATGTTACTCTCTATAAAGCTTTCAATGACTTGAAAAACAGGAAC
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Patent No. US20020090658A1
GENERAL INFORMATION:
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Best Local Similarity 58.09
Matches 639; Conservative
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                            US-09-262-213A-4
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Sequence 13050, Application US/09960352

Sequence 13050, Application US/09960352

Patent No. US20020137139A1

GENERAL INFORMATION:
APPLICANT: Warren, Wesley C.
APPLICANT: Byatt, John C.
APPLICANT: Byatt, John C.
APPLICANT: Mathialagan, Nagapan
TITLE OF INVENTION: NUCLEIC ACID AND OTHER MOLECULES ASSOCIATED WITH LACTATION AND TITLE OF INVENTION: MSCLE AND FAT DEPOSITION
FILE REFERENCE: 16511.006/37-21(10298)C
CURRENT APPLICATION NUMBER: US/09/960,352
CURRENT FILING DATE: 2001-09-24
NUMBER OF SEQ ID NOS: 13112
SEQ ID NO 13550
                                                                                                                   AND
TITLE OF INVENTION: NACHDIAL ACTOR AND OTHER MOLECULES ASSOCIATED WITH LACTATION AT TITLE OF INVENTION: NUCLEIC ACLD AND OTHER MOLECULES ASSOCIATED WITH LACTATION AT TITLE OF INVENTION: MUSCLE AND FAT DEPOSITION
TITLE OF INVENTION: MUSCLE AND FAT DEPOSITION
CURRENT APPLICATION NUMBER: US/09/960,352
CURRENT FILING DATE: 2001-09-24
NUMBER OF SEQ ID NOS: 15112
SEQ ID NOS: 15112
LENGTHOMAGER OF SEQ ID NOS: 15112
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        144 CTGCCTGTGTACTCACCTGATCTATGCCTTTGCTGGGATGCAGAACAATGAGATCACCAC
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                                                                                                                                                                                                                                                                                                                                                                     Score 152.2; DB 10; Length 415;
Pred. No. 1e-39;
0; Mismatches 133; Indels 0;
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.OTHER INFORMATION: Clone ID: 56-LIB188-019-Q1-E1-F8
.09-960-352-13050
                                                                                                                                                                                                                                                                         ; TYPE: DNA
; ORGANISM: Bos taurus·
; OTHER INCRRATION: Clone ID: 12-LIB188-006-Q1-E1-C7
US-09-960-352-2589
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Pred. No. 7.4e-39;
0; Mismatches 124;
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Best Local Similarity 63.6%;
Matches 232; Conservative 0
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Best Local Similarity 64.4
Matches 224; Conservative
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US-09-960-352-13050
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                                                                                                                                 366
                                                                                                                                                                                                GTTGAGAAACTGGCAAAAAGATCTGGATTTCATCAACCTCCTGTCCTTTGACTTCCATGGG 711
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                                                                                             231 TAAAGCTTTCAA-TGACTTGAAAAACAGGAACAGCAAACTGAAAACCCTCCTGGCAATTG
                                                                                                                   CCAGACCATCAACAGTTCTCAAAACCAAGAATCCCAAACTGAAAATTCTCTTGTGCATTG
                                                                                                                                                                        GAGGCTGGAACTTGGAACTGCTCTTTCACTACCATGGTTTCCACTTCTCAGAACCGCC
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Patent No. US20020137139A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Warren, Wesley
APPLICANT: Tao, Nengbing
APPLICANT: Byatt, John C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-960-352-2589
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RESULT 10

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APPLICANT: Warren, Wesley C.
APPLICANT: Tao, Nengbing
APPLICANT: Tao, Nengbing
APPLICANT: Tao, Nengbing
APPLICANT: Byatt, John C.
APPLICANT: Mathialagan, Nagappan
TITLE OF INVENTION: NUCLEA AND FAT DEPOSITION
FILE REFERENCE: 16511.006/37-21(10298)C
CURRENT APPLICATION NUMBER: US/09/960,352
CURRENT FILING DATE: 2001-09-24
NUMBER OF SEQ ID NOS: 15112
SEQ_ID.NO. 3057
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APPLICANT: Warren, Wesley C.
APPLICANT: Tao, Nengbing.
APPLICANT: Tao, Nengbing.
APPLICANT: Byatt, John C.
APPLICANT: Mathialagan, Nagappan
TITLE OF INVENTION: NUCLEIC ACID AND OTHER MOLECULES ASSOCIATED WITH LACTATION AND
TITLE OF INVENTION: MUSCLE, AND PROPERTION
FILE PEFERBACE: 16511.006/37-21(10299).
CURRENT APPLICATION NUMBER: US/09/960,352
CURRENT FILING DATE: 2001.09-24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    161 TGATCTATGCCTTTGCTGGGATGCAGAACAATGAGATCACCACCATAGAATGGAATGATG
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    301 GACTGGACCTAGCATGGCTCTACCCCGGGTGGAGAGACAAGCGGCATC 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 148; DB 10; Length 4
Pred. No. 2.6e-38;
0; Mismatches 125; Indels
                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA OCHENIEM: BOS TAURUS CHER INFORMATION: Clone ID: 14-LIB188-002-Q1-E1-D5 US-09-960-352-3057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3072, Application US/09960352 Patent No. US20020137139A1
                                                                                                ; Sequence 3057, Application US/09960352; Patent No. US20020137139A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9.7%;
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SEQ ID NO 3072
LENGTH: 418
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Matches 223; Conservative
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ORGANISM: Bos taurus
                                                            RESULT 13
US-09-960-352-3057
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APPLICANT: Warren, Wesley C.
APPLICANT: Tao, Nengbing
APPLICANT: Byatt, John C.
APPLICANT: Byatt, John C.
APPLICANT: Byatt, John C.
TITLE OF INVENTION: NUCLEIC ACID AND OTHER MOLECULES ASSOCIATED WITH LACTATION AND TITLE OF INVENTION: MUSCLE AND FAT DEPOSITION
FILE REPRENCE: 16511.006/37-21(10299)
CURRENT APPLICATION NUMBER: US/09/960,352
CURRENT APPLICATION DATE: 2001-09-24
SEQ ID NO 7364
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             341 AGAACCGCCAGACCTTCATTACCTCAGTCATCAAATTTCTGCGTCAGTATGGGTTTGATG .400
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                                                                                                                                                                                                                                  TGGCAATTGGAGGCTGGAACTTTGGAACTGCTCCTTTCACTACCATGGTTTCCACTTCTC 340
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                        161 IGATCTATGCCTTTGCTGGGATGCAGAACAATGAGATCACCACCATAGAATGGAATGATG
                                                                                                                                                         TTACTCTCTATAAAGCTTTCAATGACTTGAAAAACAGGAACAGCAAACTGAAAACCTCC
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; OTHER INFORMATION: Clone ID: 32-LIB188-023-Q1-E1-H11
US-09-960-352-7364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 148; DB 10;
Pred. No. 2.5e-38;
0; Mismatches 125;
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Patent No. US20020137139A1
GENERAL INFORMATION:
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Best Local Similarity 64.1%;
Matches 223; Conservative
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Petent No. US20020137139A1
GENERAL INFORMATION:
APPLICANT: Tao, Nengbing
APPLICANT: Byatt, John C.
TITLE OF INVENTION: MUSCLE ACID AND OTHER MOLECULES ASSOCIATED WITH LACTATION AND TITLE OF INVENTION: MUSCLE AND FAT DEPOSITION
CURRENT APPLICANT: 16511.066/37-21(10298)C
CURRENT FILING DATE: 2001-09-24
SEQ ID NOS: 15112
SEQ ID NOS: 15112
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                                               Length 418;
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                                                                         0; Mismatches 126; Indels
; OTHER INFORMATION: Clone ID: 14-LIB188-015-01-E1-D5 US-09-960-352-3072
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; ORGANISM: BOS taurus
; OTHER INFORMATION: Clone ID: 02-LIB188-020-Q1-E1-A5
US-09-960-352-265
                                            Score 147.4; DB 10;
Pred. No. 4e-38;
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Pred. No. 2.1e-34;
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Matches 223; Conservative
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Mus musculus adult male stomach cDNA, RIKEN full-length enriched library, clone:2200003E03:chitinase, acidic, full insert sequence. AK008633
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Mus musculus (strain:C57BL/6J) adult male stomach cDNA to mRNA, clone_lib:RIKEN full-length enriched mouse cDNA library clone:2200003E03.
Eukar musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostoml; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.
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High-efficiency full-length cDNA cloning
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AUTHORS
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AUTHORS

JOURNAL MEDLINE PUBMED

TITLE

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481 GAAATGCGTGAAGCTTTTGAGCAGGAGGCTATTGAGAGCAACAGGCCCAGACTGATGGTT
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/db_xref="MGN:1892888"
/db_xref="taxon:10090"
/clone="2200003E03"
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Matches 1514; Conservative
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Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Makamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakguchi, S., Ikegami, T., Kashiwagi, K., Yoneda, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watchiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Functional annotation of a full-length mouse cDNA collection Nature 409 (6821), 685-690 (2001)
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COMMENT

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCAAGCCTGATGACATTAACCCCTGCCTGTGTAACTCACCTGATCTATGCCTTTGCTGGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361 ACCTCAGTCATCAAATTTCTGCGTCAGTATGGGTTTGATGGACTGGACTTGGACTGGGAA
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Genomic Sciences Center and Genome Science Laboratory in RIKEN.

Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. First strand cDNA was primed with a primer [5' AGAGAGAGAGACACTTTTTTTTTTTTTVN 3'), CDNA was prepared by using trehalose thermo-activated reverse transcriptase and subsequently enriched for full-length by cap-trapper. CDNA went through one round of normalization to Rot = 5.0 and subtraction to of sequence [5'
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PREFEDEBLESNRPRLWYTARVARGGETSONIQAGYEIPELSKYLDFIHVMTYDLHGSWEG
YTGBRSPLKKYPTFGSNAYLANDYMNYWRNNGAPAEKLIYGFPEYGHAFILRNPSD
NGIGAPTSGDGPAGPYTRQAGFWAYYEICTFIRSGATEWWDASQ"
                                                                                                          Direct Submission Submission Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanaqawa 230-0045, Japan (E-mail:genome-reségsc.riken.go.jp, INR:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222,
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/clone_lib="RIKEN full-length enriched mouse cDNA library"
/dev_stage="adult"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of sequence [5' | GAAAGAGTTAATTAATCCCCCCCCCCCC 3']. cDNA was cl.with XhoI and Ssti. Cloning sites, 5' end: XhoI; 3' end: SstI.
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S Adachi, J., Alzawa, K., Akahira, S., Akimura, T., Aono, H., Arai, A., Arakawa, T., Baldarelli, R., Bono, H., Brownstein, M., Bult, C., Arakawa, T., Baldarelli, R., Bono, H., Brownstein, M., Bult, C., Carninci, P., Fukuda, S., Fukunishi, Y., Hurnoka, T., Haraka, T., Haraka, T., Haraka, T., Haraka, T., Haraka, T., Kouno, K., Hiraoka, T., Kasukawa, T., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Quackenbush, J., Saito, H., Saito, R., Sahat, Y., Shibata, Y.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIREN), Laboratory for Genome Exploratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanaqawa 230-0045, Japan (E-mail:genome-reségsc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /tissue_type="stomach" /clone_lib="RIKEN full-length enriched mouse cDNA library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 data source:MGD, source key:MGI:1932052, evidence:ISS"
/db_xref="MGD:MGI:1932052"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               Functional annotation of a full-length mouse cDNA collection
Nature 409 (6821), 685-690 (2001)
   Matsuo, Y., Nikaido, I., Pesole, G.,
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/db_xref="FANTOW.DB:2200008L17"
/db_xref="MGD:NGI:1894268"
/db_xref="taxon:10090"
/clone="2200008L17"
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                                 AKOU8650 1534 bp mRNA linear HTC 19-JAN-2002 Mus musculus adult male stomach CDNA, RIKEN full-length enriched library, clone:2200008L17:chitinase, acidic, full insert sequence. AK008650
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                                                                                                                                                                                1321 AGAAATGCTTTTTGGCAGTGCATCAATGGAATCACATACCAGCAGCAGTTGTCAAGCAGGG 1380
                                                                                                                                                                                                                                                                                                                       CTTGTTTTTGATACCAGCTGTAATTGCTGCAACTGGCCATGAACCTAATGCCATTCTTCC 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1397 CTTGTTTTGATACCAGCTGTAATTGCTGCAACTGGCCATGAACCTAATGCCATTCTTCC 1456
TCCGAGCCAGTGACTACTCCTCCAGGAAGTGGGGAGTGGGGGGTGGAAGCTCCGGAGGAAGC 1260
                                                                                                                                           1261 TCTGGAGGCAGTGGATTCTGTGCCGACAAAGCAGATGGCCTCTACCCTGTGGCCAGATGAC 1320
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Azakawa,T., Hara,A., Fukunishi,Y., Konno,H., Adachi,J., Fukuda,S.,
Aizawa,K., Izawa,M., Nishi,K., Kiyosawa,H., Kondo,S., Yamanaka,I.,
Saito,T., Okazaki,Y., Gojobori,T., Bono,H., Kasukawa,T., Saito,R.,
Kadota,K., Matsuda,H., Ashburner,M., Batalov,S., Casavant,T.,
Fleischmann,W., Gaasterland,T., Gissi,C., King,B., Kochiwa,H.,
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Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (strain:C57BL/6J) adult male stomach cDNA to mRNA, clone.11b:RIKEN full-length enriched mouse cDNA library clone:2200008L17.
Mus musculus
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
99270253
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Mammalia; Eutheria;
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/tissue_type="pancreas"
/clone_lib="RIKEN full-length enriched mouse cDNA library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GCCTACAATCTGATATGCTATTTCACCAACTGGGCCCAGTATCGGCCAGGTCTGGGGAGC 120
                                                                                                                                                                                    data source:MGD, source key:MGI:1932052, evidence:ISS"
/db_xref="MGD:MGI:1932052"
1 384 c 370 g 399 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                197 ATGCAGAACAATGAGATCA-CACCATAGAATGGAATGATGATACTCTCTATAAAGCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 TTCAAGCCTGATGACATTAACCCCTGCCTGTGTACTCACCTGATCTATGCCTTTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 ATGCAGAACAATGAGATCACCACATAGAATGGAATGATGTTACTCTCTATAAAGCTTTC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 TITIGGAACTGCTCCTTTCACTACCATGGTTTCCACTTCTCAGAACCGCCAGACCTTCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361 ACCTCAGTCATCAAATTTCTGCGTCAGTATGGGTTTGATGGACTGGACCTGGACTGGGAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601 TCTAAGTACCTGGATTTCATCCATGTCATGACATATGACCTCCATGGCTCCTGGGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661 TACACTGGGGAGAATAGTCCTCTTTACAAATACCCTACTGAGACTGGTAGCAATGCCTAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 17 ATGGCCAAGCTACTTCTCGTCACAGGTCTGGCTCTTCTGCTGAATGCTCAGCTGGGGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421 TACCCAGGCTCACGTGGGAGCCCTCCTCAGGACAAGCATCTCTTCACTGTCCTGGTGAAG
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Pred. No. 0;
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                                                                                                                /dev_stage="10 day old"
1. 1530
/note="chitinase, acidic
    /db_xref="taxon:10090"
                          /clone="1810021D23"
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99.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Please visit our web site (http://genome.gsc.riken.go.jp/) for
RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Functional annotation of a full-length mouse cDNA collection Nature 409 (6821), 685-690 (2001)
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Musinae; Mus.

I (bases 1 to 892)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov

Tissue Procurement: Jeffrey E. Green, M.D.

CONA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
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                                                                                                                                                AGCTICAGIGITAAGGCICCAGIGGCTIAAGCAGAACAATTITGGAGGIGCCAIGAICIGG 1080
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                                                TGGGCCTACTATGAGATTTGCACCTTTCTGAGAAGTGGAGCCACTGAGGTCTGGGATGCC
                                                            TCCCAAGAAGTGCCCTATGCCTATAAGGCCAACGAGTGGCTTGGCTATGACAATATCAAG
                                                                                                              TCTACTTTGAACAAGCCCTTGGCATATCCACTGAAGGTTGCACAGCTCCTGACGTGCCT
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/dclone="limAGE:6051580"
/clone=lib="NCI_CGAP_Stl"
/lab_host="nHIOB (TI-resistant)"
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/note="Organ: stommach; Vector: pCMV-SPORT6; Site_1: SalI;
/note: pcmcare; Vector: pcmcare; Vec
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Pred. No. 2.7e-254;
0; Mismatches 14;
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http://image.llnl.gov
Plate: LLAM13305 row: k column:
High quality sequence stop: .772.
                                                                                                 Location/Qualifiers
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

I (bases 1 to 1007)

Arakawa,T., Carninci,P., Fukuda,S., Furuno,M., Hanagaki,T., Hara,A.,

Hiramoto,K., Hori,F., Ishii,Y., Ito,M., Kawai,J., Konno,H., Kouda

,M., Koya,S., Matsuyama,T., Miyazaki,A., Nomura,K., Ohno,M.,

Okazaki,Y., Okido,T., Saito,R., Sakai,K., Sano,H., Sasaki
,D., Shibata,K., Shinagawa,A., Shiraki,T., Sogabe,Y., Suzuki,H.,

Tagami,M., Tagawa,A., Takahashi,F., Takeda,Y., Tanaka,T., Toya,T.,

RIKEN Mouse ESTS (Arakawa,T., et al. 2001)

Unpublished (2001)

On Jun 24, 1999 this sequence version replaced gl:5192357.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AV072529 1007 bp mRNA linear EST 24-OCT-2001 AV072529 Mus musculus stomach C57BL/6J adult Mus musculus cDNA clone 2200004B09, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  URL: http://genome.go.go.riken.go.jp,
URL: http://genome.go.go.riken.go.jp,
Carninci.p., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh
Carninci.p., Shibata,Y., Hayatsu,N., and Hayashizaki,Y.
Normalization and subtraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new
penes. Genome Res. . 10 (10), 1617-1630 (2000)
wagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E.,
Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura
Hayashizaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan Tel: 81-45-503-9226
Fax: 81-45-503-9216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN.
                      Hayashizaki,Y.
Computational Analysis of Full-Length Mouse cDNAs Compared with
Human Genome Sequences Mamm. Genome. 12, 673-677 (2001)
Please visit our web site (http://genome.gsc.riken.go.jp/) for
further details.
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  CCTTCATCCTGAGAAACCCCTCTGATAATGGAATTGGTGCCCCTACCTCTGGTGATGGCC
                                                                                                869 CTGCTGGCGCCTATACCAGACAGGCTGGGTTCTGGGCCTACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Yoshihide Hayashizaki
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Location/Qualifiers
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809
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KEYWORDS
SOURCE
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/organism="Mus musculus"

source

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T 3']; double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pT773 vector. RNA provided by Dr. Minoru Ko, Wayne State Univ. Library constructed and normalized by Bento Soares and M.Fatima Bonaldo."
                                                                                                                             /note="Organ: mammary gland; Vector: pT7T3D-Pac (Pharmacla ) with a modified polylinker; Site_1: Not I; Site_2: Eco RI; 1st strand cDNA was primed with a Not I - oligo(dT)
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                                          adult"
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                                          stomach C57BL/6J
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                                            /clone_lib-"Mus musculus
/db_xref-"taxon:10090"
                                                                                       /tissue_type="stomach"
/dev_stage="adult"
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                     /clone-"2200004B09'
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 838)
                                                                                                                                                                                          ATGCAGAACAATGAGATCACCACCATAGAATGGAATGATGTTACTCTCTATAAAGCTTTC
                                              241 AATGACTTGAAAAACAGGAACAGCAAACTGAAAACCCTCCTGGCAATTGGAGGCTGGAAC
                                                                                                                                                                                                                                                                            ACCTCAGTCATCAAATTTCTGCGTCAGTATGGGTTTGATGGACTGGACTGGACTGGGAAA ACCTCAGTCATCAATTCTGCGTCAGTCATGGGTTTGATGATGGACTGGACTGGGAAATTTCTGCGTCAGTATGGGTTTGATGGACTGGACTGGACTGGGAAA
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National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
CONA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
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BG867815
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Upublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencuit Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
DNA Sequence stop: 724.
High quality sequence stop: 724.

I. 872

I. 872

I. 872

About Juna Busculus"

About Juna Busculus Julia Busculus Julia Busculus Julia Bus
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  GCAGATGACAGAAATGCTTTTTGGCAGTGCATCAATGGAATCACATACCAGCAGCATTGT 1371
                                                                                                                                                                      CATTCTTCCAGAAATTTCTGCACTCTCTTTACTCCTCACCAAAAGTAACTATCTTCCCT 1491
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

1 (bases 1 to 872)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
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                      CAAGCAGGCTTGTTTTTGATACCAGCTGTAATTGCTGCAACTGGCCATGAACCTAATGC
                                                                                                      GCCTACAATCTGATÄTGCTATTTCACCAACTGGGCCCAGTATCGGCCAGGTCTGGGGAGC
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BQ28COURT_7578230 NCI_CGAP_Stl M
IMAGE:6051490 5', MRNA sequence.
BQ231064
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al Similarity 99.18;
844; Conservative (
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Euteleostomi; Murinae; Mus.

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1. .837
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/organism="TwbN"
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Not1; Site_2: SalI; Cloned unidirectionally. Primer: Oligo
dT. Average insert size 1.3 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
12 a 211 c 197 g 217 t
                                                                                                                                  bp mRNA linear EST 29-MAY-2001 musculus cDNA clone IMAGE:4913800 5',
 AAGAACAATGGAGCCCCAGCTGAGAAGCTCATTGTTGGATTCCCAGAGTTTGGACACACC 780
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Email: cgapbs-rémail.nih.gov
Tissue Procurement: Jéffrey E. Green, M.D.
CDNA Library Preparation: Life Technologies, Inc.
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CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM10819 row: k column: 17
High quality sequence stop: 836.
High quality sequence stop: 836.
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NIH-WGC http://mgc.ncl.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
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Sciurognathi; Muridae; Murinae;
                             837;
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Rodentia;
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Mus
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house mouse.
Mus musculus
Eukaryota, Metazoa, C
Mammalia, Eutheria, R
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mRNA sequence.
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/db_xref="typB/N"
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/note="Organ: salivary gland; Vector: pCMV-SPORT6; Site_1:
Not1; Site_2: Sal1; Cloned unidirectionally. Primer: Oligo dT. Average insert size 1.3 kb. Constructed by Life
Technologles. Note: this is a NCI_CGAP Library."
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                                                                                                                                                                                                                                                                                  Score 823.6; DB 12; Length 838; Pred. No. 1.1e-242; 0; Mismatches 9; Indels 0;
   I.M.A.G.E. Consortium/LLNL
                             column: 09
p: 824.
found through the I.M.A.G.E. http://image.llnl.gov
Plate: LLAM10816 row: 9 col
High quality sequence stop: 8
Location/Qualifiers
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Best Local Similarity 98.9%;
Matches 829; Conservative
                                                                          1. .838
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NotI; Site_2: SalI; Cloned unidirectionally. Primer: Oligo dar. Average insert size 1.3 kb. Constructed by Life Technologies. Vote: this is a NCI_CGAP Library."

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mRNA sequence.
BG869655
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99.4%;
                                                                             Query Match 52.5
Best Local Similarity 99.4
Matches 825; Conservative
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/clone_lib="NCI_CGAP_SG2"
/lab_host="DH10B (Tl phage-resistant)"
/note="crgan: salivary gland; Vector: pcMV-SPORT6; Site_l:
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NHH-MGC http://mgc.ncl.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                     TCTAAGTACCTGGATTTCATCCATGTCATGACATATGACCTCCATGGCTCCTGGGAGGGC
                                                                ACCTCAGTCATCAAATTTCTGCGTCAGTATGGGTTTGATGGACTGGACCTGGACTGGGAA
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Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
Tissue Procurement: Jeffrey E. Green, M.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL.)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM10846 [row: d column: 20
High quality sequence stop: 836.
Location/Qualifiers
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/organism="Mus musculus"
/strain="FVB/N"
/db_xref="taxon:10090"
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BG872136.1 GI:14222676
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AUTHORS
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JOURNAL
COMMENT
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836 bp mRNA linear EST 29-MAY-2001 Mus musculus cDNA clone IMAGE:4921203 5', 120 120 180 180 240 240 360 540 300 300 360 420 480 480 540 009 900 999 720 999 TACACTGGGGAGAATAGTCCTCTTTACAAATACCCTACTGAGACTGGTAGCAATGCCTAC 720 CTCAATGTGG-ATTATGTCATGAACTAT-TGGAAGAACAATGGAGCCCCAGCTGAGAAGC 778 9 9 1 ATGCCCAAGCTACTTCTCGTCACAGGTCTGGCTCTTCTGCTGAATGCTCAGCTGGGGGTCT GCCTACAATCTGATATGCTATTTCACCAACTGGGCCCAGTATCGGCCAGGTCTGGGGAGC GCCTACAATCTGATATGCTATTTCACCAACTGGGCCCAGTATCGGCCAGGTCTGGGGGG 121 TICAAGCCTGATGACATTAACCCCTGCCTGTGTACTCACCTGATCTATGCCTTTGCTGGG 181 ATGCAGAACAATGAGATCACCACCATAGAATGGAATGATGTTACTCTCTATAAAGCTTTC TTTGGAACTGCTCCTTTCACTACCATGGTTTCCACTTCTCAGAACCGCCAGACCTTCATT ACCTCAGTCATCAAATTTCTGCGTCAGTATGGGTTTGATGGACTGGACCTGGACTGGGAA TACCCAGGCTCACGTGGGAGCCCTCCTCAGGACAAGCATCTCTTCACTGTCCTGGTGAAG GAAATGCGTGAAGCTTTTGAGCAGGAGGCTATTGAGAGCAACAGGCCCAGACTGATGGTT TCTAAGTACCTGGATTTCATCCATGTCATGACATATGACCTCCATGGCTCCTGGGAGGGC TCTAAGTACCTGGATTTCATCCATGTCATGACATATGACCTCCATGGCTCCTGGGAGGGC TACACTGGGGAGAATAGTCCTCTTTACAAATACCCTACTGAGACTGGTAGCAATGCCTAC Gaps TCATTGTTGGATTCCCAGAGTATGGACACACCTTCATCCTGAGAAACCCC 828 ; 855; Length Indels Score 801.2; DB 12; Pred. No. 9.2e-236;); Mismatches 3;

540 9 600 99 9 720 720 780 778

Sun

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/organism="Mus musculus"
/strain="FVB/N"
/strain="FVB/N"
/strain="FVB/N"
/clone="In-Tab_1921890"
/clone_lib="NCI_CGAP_SG2"
/lab_host="DH10B (T1 phage-resistant)"
/lab_host="DH10B (T1 phage-resistant)"
/note="Corgan: salivary gland; Vector: pcMv-SPORT6; Site_1: NotI: Site_2: Sali; Cloned unidirectionally. Primer: Oligo dT. Average insert size 1.3 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
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musculus cDNA clone IMAGE:4921890 5',
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II HMGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact. NUCLIA CALLES STATES 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 GCCAAGCTACTTCTCGTCACAGGTCTGGCTCTTCTGCTGAATGCTCAGCTGGGGTCTGCC
                                                                              CTCAATGTGGATTATGTCATGAACTATTGGAAGAACAATGGAGCCCCAGCTGAGAAGCTC
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Pred. No. 1e-233;
0; Mismatches 19;
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mRNA sequence.
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Best Local Similarity 97.3%;
Matches 851; Conservative
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/clone="INAGE:4921203"
/clone=lib="NCI_CGAP_SG2"
/lab_host="DH10B ("I phage-resistant)"
/note="Organ: salivary gland; Vector: pCMV-SPORT6; Site_1:
NotI: Site_2: SalI; Cloned unidirectionally. Primer: Oligo
dT. Average insert size 1.3 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
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                                                                           Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
I (bases 1 to 836)

NIH-MGC http://mgc.ncl.nih.gov/.

NIH-MGC http://mgc.ncl.nih.gov/.

Ontact: Robert Strausberg, Ph.D.
Email: capabs-rémail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.

CONA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATGACTTGAAAAACAGGAACAGCAAACTGAAAACCCTCCTGGCAATTGGAGGCTGGAAC 300
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Clone distribution: MGC clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 ATGGCCAAGCTACTTCTCGTCACAGGTCTGGCTCTTCTGCTGAATGCTCAGCTGGGGGTCT
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Plate: LLAM10838 row: p column: 04
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Pred. No. 3.2e-234;
0; Mismatches 13; I
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Location/Qualifiers
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/db_xref="taxon:10090"
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ilarity 98.2%;
Conservative (
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                                                             house mouse.
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Matches 816; Conserv
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l. .894
/organism="Mus musculus"
/strain="FYB/N"
/db_xref="taxon:10090"
/db_xref="taxon:10090"
/clone="ImAGE:4920]8"
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/clone="ImAGE:4920]8"
/clone="InAGE:4920]8"
/clone="InAGE:4
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              Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
    Tissue Procurement: Jeffrey E. Green, M.D.
    cDNA Library Preparation: Life Technologies, Inc.
    cDNA Library Preparation: Life Technologies, Inc.
    cDNA Library Preparation: Life Technologies, Inc.
    cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
    DNA Sequencing by: Incyte Genomics, Inc.
    Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
    http://image.llnl.gov
    Plate: LLAM10838 row: d column: 07
    High quality sequence stop: 805.
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Pred. No. 3.2e-232;
0; Mismatches 27;
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ilarity 96.5%;
Conservative (
Unpublished
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Matches 850;
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Mus musculus cDNA clone IMAGE:4920918 5',
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Mus musculus

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

1 (bases 1 to 894)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
              GGAACTGCTCCTTTCACTACCATGGTTTCCACTTCTCAGAACCGCCAGACCTTCATTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGCCTGATGACATTAACCCCTGCCTGTGTACTCACCTGATCTATGCCTTTGCTGGGATG
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/clone="IMAGE-11421"
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/lab_hok_"Dign: Sill phage-resistant)"
/note="Organ: Salivary gland; Vector: pCMV-SPORT6; Site_1: Not1; Site_2: Sali; Cloned unidirectionally. Primer: Oligo dr. Average insert size 1:3 kb. Constructed by Life Technologies. Note: this is a NoI_constructed by Life 200 c 208 g 207 t a lothers
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                                          found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Plate: LLAM10813 row: h column: 14
High quality sequence stop: 804.
Location/Qualifiers
1. .809
                 DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution
                                                                                                                                                                                                                                                                                                                                               Score 788; DB 12;
Pred. No. 1.1e-231;
0; Mismatches 6;
                                                                                                                                       /organism="Mus musculus"
/strain="FVB/N"
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Search completed: July 3, 2003, 08:40:36 Job time: 2289.02 secs